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American Cinematographer

Visual Pyrotechnics Propel
The Hudsucker Proxy

Civil War Saga Continues
In North and South III

The Phantom Empire
Launches Gene Autry

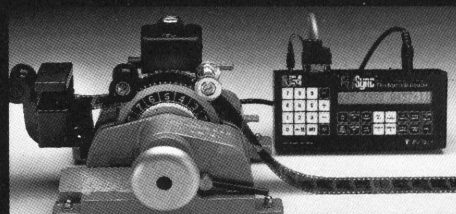


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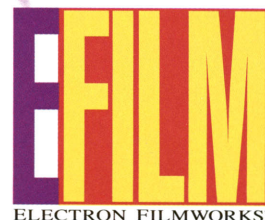
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On Our Cover: An artful composition by cinematographer Roger Deakins, BSC conveys the pensive mood of business magnate Sidney J. Mossburger (Paul Newman) in *The Hudsucker Proxy* (photo by Jim Bridges).

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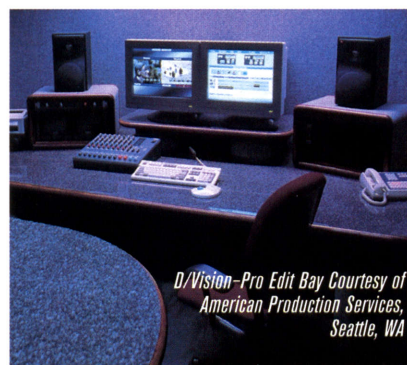
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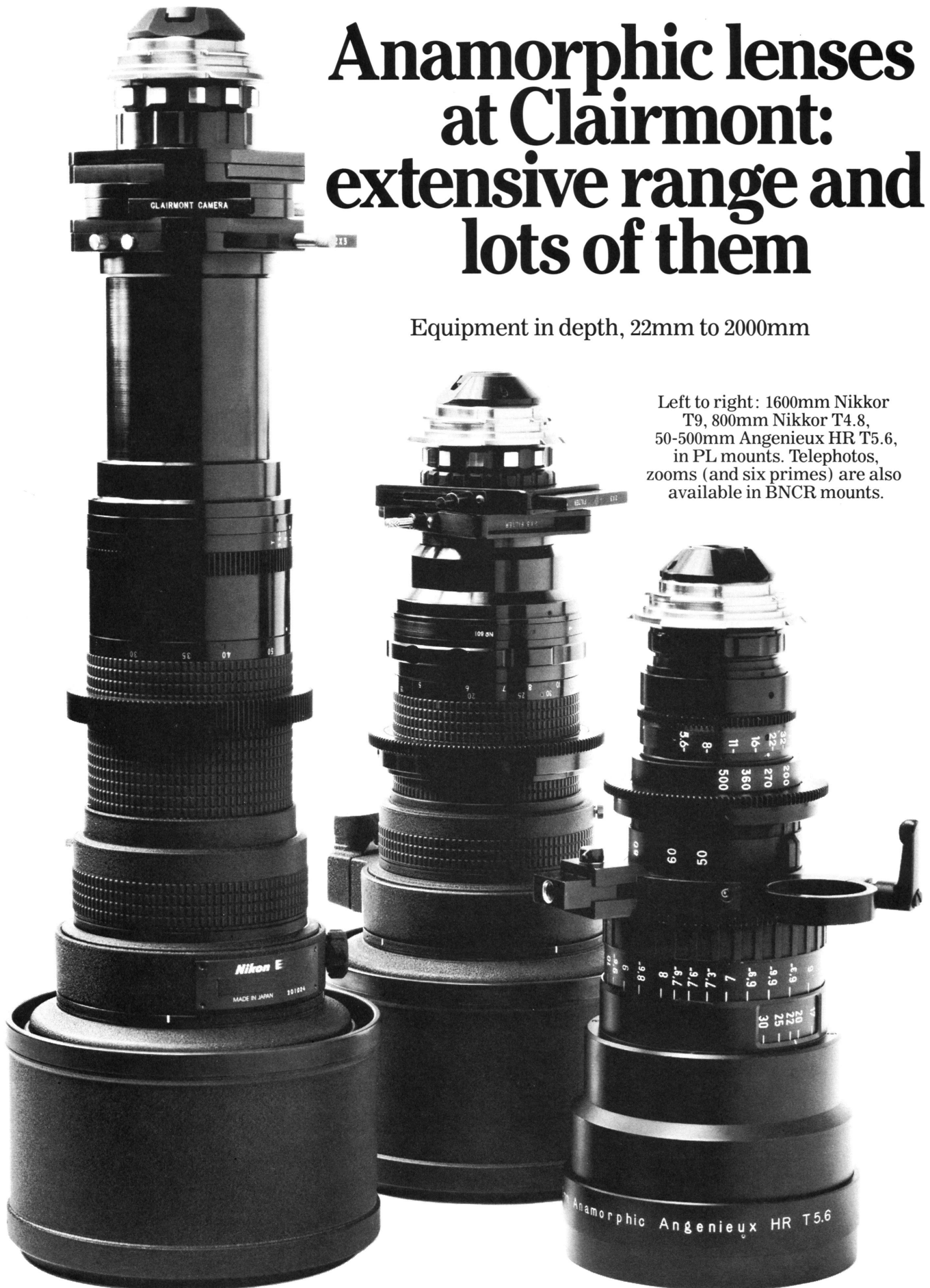
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Letters

Fewer "Love Letters," Please

The articles in the February issue concerning Conrad Hall are interesting to a point but, as usual, too much emphasis is placed on the relationship of the director of photography to the director and vice versa. It's nice that the director of photography "loves" the director and the director "can't live without" the director of photography, but, really, who cares?

We who are roughing it out here away from the "big time" need articles and information that are more technical in nature, especially those of us who are trying to teach neophytes the tricks of the trade.

Please, let's have less of the "love letters" and more diagrams and detailed information concerning lighting and camera problems.

Let the directors of photography and directors admire each other on their own time.

— Robert E. Rogers
Dallas

More Historicals

I'm a longtime, cover-to-cover reader of *American Cinematographer* and consider it to be the finest publication in its field. Only one thing is lacking at this time: the wonderful historical articles which in the past have been such a fine tradition. Why have you stopped running them? I realize that the main thrust of the magazine is the current scene in filmmaking, but the historical features provide a fine perspective on our industry and our art form. Can't you have Turner, Behlmer, and the other notable authors back in your pages with more of those terrific stories about the great filmmakers of the past?

— Robert Tarver
Glendale, CA

From time to time the historicals get preempted by other editorial

material. You'll find we've resumed them in this issue.— Ed.

A Black & White Problem

While reading your article on *Schindler's List* (January '94), I was reminded of a similar situation I had a couple of years ago regarding static lines on the negative. The combination of the dry Southern California air, the cold February temperatures and the high silver content of the black & white Ilford film we were using led to hideous streaks appearing on a significant proportion of our dailies. Upon the advice of a still photographer, I purchased an anti-static cloth at a local photo supply store for a few bucks. For the remainder of the film, I wiped the gate of the camera with this cloth between loads, carefully checking for any lint deposit. To my amazement, the problem was solved. Long live black & white!

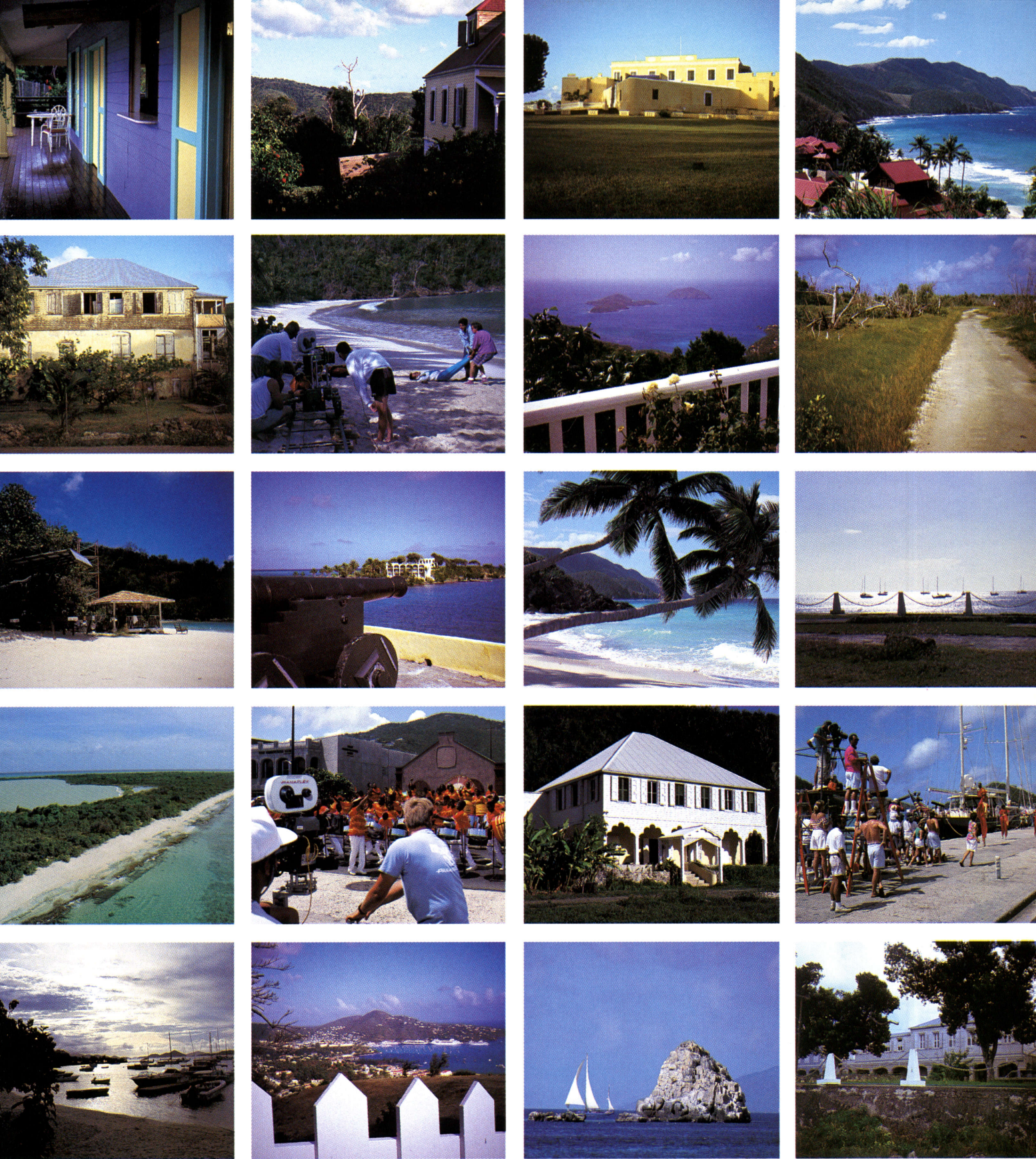
— Brian Louks
Los Angeles

For more information on fighting static, please see the American Cinematographer Manual 7th Edition, page 509.— Ed.

The 70mm Question Answered

Regarding Carlo Piaget's question about the difference between 65mm negative and 70mm print stocks (February Letters column): it's another case of "if it ain't broke, don't fix it" that goes back to Dr. Brian O'Brien's development of the Todd-AO format in 1953.

Dr. O'Brien's assignment from Mike Todd was to create a "Cinerama that came out of one hole." His conclusion, the reasons for which are still a subject of debate, was a 65mm negative with an image five perforations high, relying primarily on a lens with a 128-degree field of view for photography and projected onto a deeply curved screen (including, naturally, stereo-

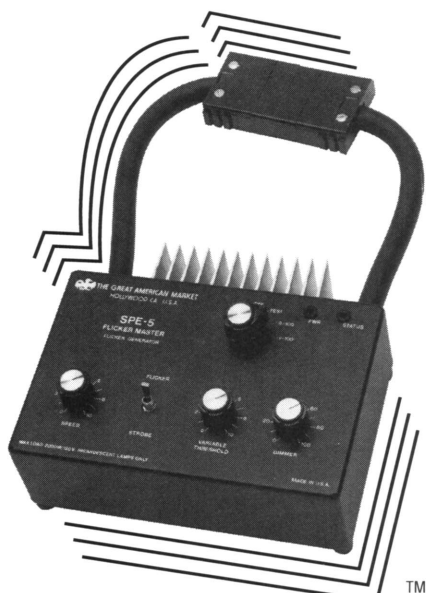


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phonic sound). Magnetic recording and playback techniques, which had made stereophonic sound practical, had been in use in the industry for only five years, and the noise reduction techniques we have today didn't exist, requiring tracks of a certain width to acceptably reproduce sound with the full high fidelity desired.

Cinerama used six, and later seven, magnetic channels on one full-coated 35mm magnetic film, running in interlock with the three projectors. During 1953, a number of regular 35mm films were shown with three-channel magnetic sound, also from an interlocked dummy. While designing the Cinema-Scope process, the engineers at 20th Century Fox felt this double-system format was impractical for the widespread magnetic stereo-only system they were developing, and discovered that by narrowing the perforations, they could get magnetic stripes containing four channels of acceptable quality sound on the 35mm print.

Dr. O'Brien also felt that having the sound on the print was a necessity (though *Oklahoma!* was premiered in interlock), and, desiring six channels of sound, saw the need for the additional 5mm for those extra tracks. This became the basic format for wide film production and exhibition with film stock, lab processors and lab and optical printers, and projectors conforming to it. The Camera 65/Ultra Panavision process merely added a 1.25x anamorphic squeeze to actually achieve a format truly compatible with Cinerama in width (at least a quarter of *How the West Was Won* was actually shot in Ultra Panavision).

— Rick Mitchell
Los Angeles

The 70mm Question Answered, Part II

Regarding Mr. Carlo Piaget's question on the 70mm process:

70mm in the camera?
The eyes are born for 65mm.
70mm in the release print?
An open door for the mind.
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For the wonderful and
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— Wilson Fernandez
San Juan, Puerto Rico

Upcoming Events

March 25-April 7: "Cine City: Film and Perceptions of Urban Space, 1895-1992," film series, Santa Monica, CA. For information: (310) 451-6526.

Various weekends in April and May: 2-Day Film School, Philadelphia (April 9-10), Dallas (April 16-17), Seattle (April 30-May 1), Chicago (May 7-8), Boston (May 14-15). Day one covers film production, day two film business. For information: Hollywood Film Institute, (800) 366-3456, FAX (213) 933-1464.

April 3-10: Euro-American Festival International, Universal Studios Florida and other Florida locations. For information: Dale Olson and Associates Public Relations, (213) 932-6026, FAX (213) 932-1989.

April 5-7: Virtual Reality Forum, focused on virtual reality applications and developments in the fields of entertainment, advertising and marketing, New York City. For information: (212) 717-1318, FAX (212) 861-0588.

April 8-10: A Weekend with Bernardo Bertolucci, a weekend of screenings and conversations. American Cinematheque, Hollywood. For information: (213) 466-FILM.

April 12-14: New Media Expo, the Future of Interactive Information, Los Angeles. For information: New Media Expo '94, FAX (617) 449-2674.

April 12-14: Replitech International, Munich, Germany. For information: (914) 328-9157, FAX (914) 328-9093.

April 15-24: 27th Annual WorldFest-Houston International Film Festival. For information: (800) 501-0111, FAX (713) 965-9960.

April 25-9: Video Expo/Image World Chicago. For information: (800) 800-5474 or (914) 328-9157.

May 5-15: Charlotte Film and Video Festival, Charlotte, NC. For information: Mint Museum of Art, 2730 Randolph Road, Charlotte, NC 28207.

May 7-14: 21st Athens International Film and Video Festival, Athens, OH. For information: (614) 593-1330.

May 10-12: Showcase for Audio-Visual Companies, IALTEX 94 (International Amusement, Leisure and Theme Park Expo), London. For information: World's Fair Exhibitions, 2 Daltry Street, Oldham OL1 4BB, England, 44.61.624.3687, FAX 44.61.624.2554.

May 18-20: 29th Equipment Exhibition of Motion Picture and Television, Japan. For information: Motion Picture and Television Engineering Society of Japan, Inc., 3.3231.7171, ext. 8729-8731, FAX 3.3241.4284.

May 21-22: SPARS Digital Audio Workstation conference, North Hollywood, CA. For information: Shirley Kaye, SPARS (800) 771-7727.

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MOVIECAM

Production Slate

compiled by Marji Rhea

Super 16 Processing Services

Allied Film & Video's Irving, Texas facility now offers Super 16mm film processing and transfer-to-tape services, including video dailies with keycode numbers. Shooting on Super 16mm gives a filmmaker a wider range of options and the ability to produce a film for current broadcast as well as the soon-to-come 16:9 format for widescreen TV and HDTV. It also allows for blowup to 35mm for theatrical release. Even with all these features, production costs are almost identical to standard 16mm.

For information: Zahid Ali or Charles Floyd, Allied Film & Video, (214) 869-0100.

Merger

Steady Systems, Inc., one of the industry's largest independent supplier of raw film stock and recording media, has merged with Walt Davis Enterprises, one of the largest industrial video dealers on the West Coast. The new company, Steady Systems, a Division of Walt Davis Enterprises, has seven offices nationwide, in Los Angeles, Orange County, San Francisco, Chicago, Phoenix and New York.

For information: Steady Systems, 1014 N. Highland Ave., Los Angeles, CA 90036, (213) 461-6868.

Mac Animation House

In September of 1993, Cincinnati's Exhibit 3D, a Macintosh-based 3-D animation house, was commissioned by Steinberg's Superstores, a regional Midwest Electronics retailer, to produce a broadcast 3-D animation. This animation consisted of two separate seven-second animation modules which were first modeled from scratch in Form Z, then animated and rendered in Electric Image. The simultaneous compositing of up to 12 alpha channel animation layers and field-by-field output was done with ADI's MacVac software to a Pioneer VDR-V 1000 recordable VideoDisc. NTSC video output was accomplished with a 2-

meg Truevision NuVista+ board on Mac IIFx.

Under the direction of Exhibit 3D creative director Zax Dow, the final Steinberg Electric Image animation file includes 500,000 polygons. The nearly four hundred texture maps, both stationary and moving, were created with a mixture of Fractal Painter, Adobe PhotoShop and multiple sequential frame grabs taken with MacVac from BetaCam SP video.

The animation takes the viewer on a high-speed fly-through of a fantastic futuristic city built of functioning electronic components, positioned on power columns complete with spotlights and sci-fi energy bolts. The average rendering time per field varied between 16 and 35 minutes on two Quadra 950s with 72 megs of RAM.

After viewing a copy of the animation, Electric Image scrapped its existing '93-'94 upgrade advertising campaign plans and ordered a hi-res 4k X 4k still to be rendered from the Exhibit 3D module. Electric Image is using this high-resolution image file as the main graphic in the promotion of the release of its version 2.0 of the Electric Image Animation system.

Exhibit 3D was also granted the contract to create an interactive animation to promote the release of Electric Image 2.0 on CD-ROM, which will accompany each Mac PowerPC. This graphics portion of the Macintosh PowerPC interactive animation is being modeled in Form Z and animated and rendered in Electric Image, and the interactivity is being programmed in MacroMedia.

For information: Exhibit 3D, 216 E. 9th St., 6th Floor, Cincinnati, OH 45202-2155, (513) 241-5605, FAX (513) 241-7958.

National Geographic Grant

Lena Carr and coproducers Valerie Whitmore and Wanda Whitmore are the first recipients of National Geographic Television's Grant to Filmmakers from Culturally Diverse Backgrounds. The

two winning proposals were selected from more than 150 submissions.

Carr, from Albuquerque, New Mexico, and the Whitmores, from Boston, will receive \$10,000 to research and develop each film proposal, and will be encouraged to draw on the support and expertise of the National Geographic Television staff. NGTV may elect to put the projects into production as segments for the National Geographic *Explorer* series on PBS.

Carr's proposal, "Navajo Code Talkers," is the story of the little-known but important contribution of Navajo Marines in World War II, who used the complicated Navajo language to transmit vital military information. The Whitmore's proposal is "Kenya: Cradle of Champions," which explores the mystery behind Kenya's long history of champion long-distance runners.

Carr is an independent film and video producer who coproduced the PBS film *Geronimo and the Apache Resistance*, and who received an Academy Award nomination for her short film *A Laguna Woman*. The Whitmores are also independent film and video producers: Valerie has produced segments for *Evening Magazine* and *PM Magazine*, and co-executive produced *Dark Passages*, a documentary on the Atlantic slave trade. Her sister Wanda has written for *Black Enterprise* magazine and works as a segment news reporter for Black Entertainment Television (BET).

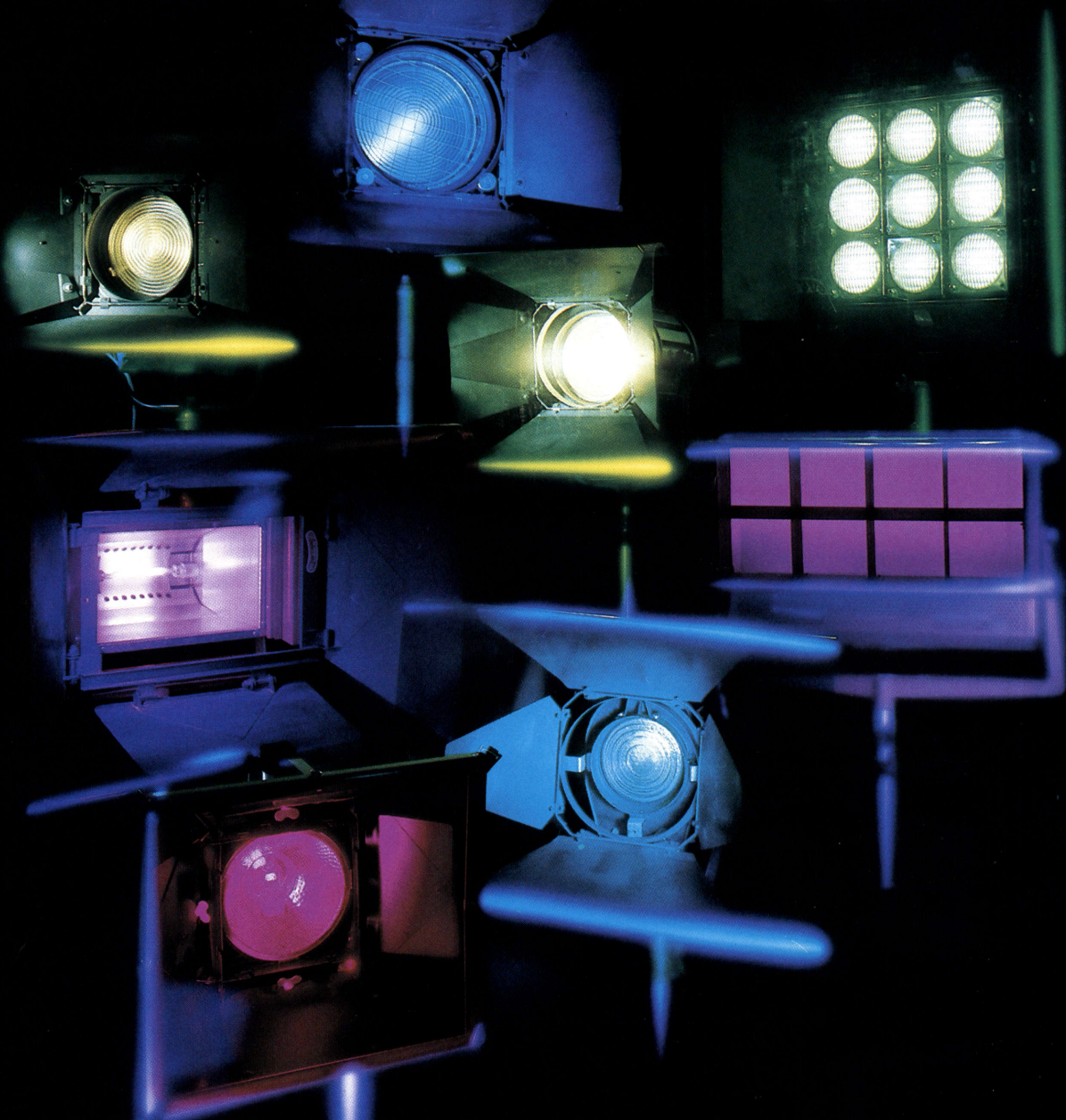
Carr and the Whitmores were honored at a reception on January 26 at the Sundance Film Festival in Park City, Utah.

For information: National Geographic Society, Television Division, Washington DC 20036, (202) 857-7000.

Henson Creature Facility

Jim Henson Productions, Inc. has opened Jim Henson's Creature Shop in Los Angeles, a permanent workshop to service the character-building needs of the Hollywood feature film, television and commercial industries. The new

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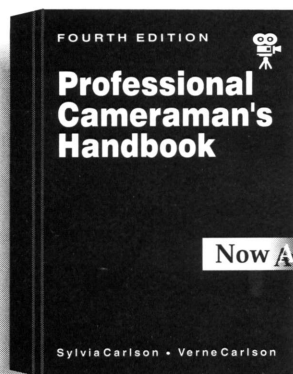
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Burbank-based shop joins the company's established workshop facilities in London and New York. The company has been providing support to such motion picture and television productions as the Amblin/Universal feature film *The Flintstones* and the ABC television series *Dinosaurs*.

Jim Henson's workshops are recognized for their work in the areas of animatronics, art direction, modelmaking, puppetmaking, costume design and manufacturing, and prosthetic makeup. Current workshop projects include *The Never Ending Story III*, a feature film shooting in Vancouver and Berlin; *Babe*, a feature shooting in Australia; *The Secret Life of Toys*, a television series shooting in Cologne, Germany; *CityKids*, a Saturday morning series airing on ABC; *Jim Henson's Dog City*, a Saturday morning series airing on the Fox Children's Network; and, from Jim Henson Productions, the feature *The Muppet Treasure Island*.

Jim Henson's Creature Shop was established in 1979 in London to build the complicated creatures that inhabit such Henson productions as *The Dark Crystal*, *Labyrinth*, and *Jim Henson's The Storyteller*. The shop's outside projects have included the feature films *Dreamchild*, *The Bear*, and *Teenage Mutant Ninja Turtles I and II*. In 1992 the Henson creative team was honored with a special Academy Award for the development of the Henson Performance Control system.

For information: Jim Henson Productions, 117 E. 69th St., New York, NY 10021, (212) 794-2400, FAX (212) 570-1147.

Live-Action Division

Santa Monica-based special effects house VisionArt Design and Animation announced today the formation of a live-action feature film division which will be headed by VisionArt CEO David Rose and producer/director Robert Marcarelli. The major focus of the new division will be the development and production of high-concept films which feature special effects and will appeal to a broad-based market. The product will also utilize the in-house special effects, CGI and tape-to-film capabilities of VisionArt. The company has three films in development for production in 1994, including *Data Man* and *On the Side of Angels*.

VisionArt Design and Animation, established in 1986 by entrepreneur David Rose, received an Emmy Award in 1993 for Best Visual Effects for their work on television's *Star Trek — Deep Space Nine*.

Robert Marcarelli's credits include the feature films *Original Intent*, *I Don't Buy Kisses Anymore* with Jason Alexander, and, most recently, the epic miniseries *Matthew* with Richard Kiley.

For information: Jeffery Bowman, VisionArt Design & Animation (818) 558-5277.

Entertainment Network

Freelance cinematographer Eric Peter Abramson and Boulder OneNet have formed The Professional Production Forum, a new international conference for working members of the entertainment/communications industries. Those who can substantiate a professional career in a wide variety of categories will be granted access to forums including film, video, audio, nonlinear, distribution, crew listings, and others as time allows and as needs of the forum change.

Working professionals, from studio executives to production assistants, with Macintosh or IBM-compatible computers with Windows are encouraged to fire up their modems and call (303) 444-7569. Download the appropriate FirstClass software and files settings for your machine. Once logged onto OneNet, you'll find the PPF located under the special interest conference.

As of now, there is no charge for time on PPF, and many may find that they have a networked system in their local area.

For information: EPA, P.O. Box 4491, Boulder, CO 80306, (303) 459-0541.

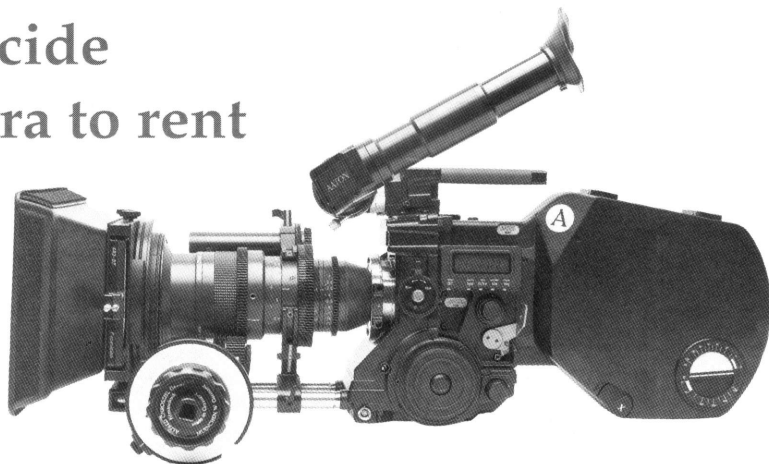
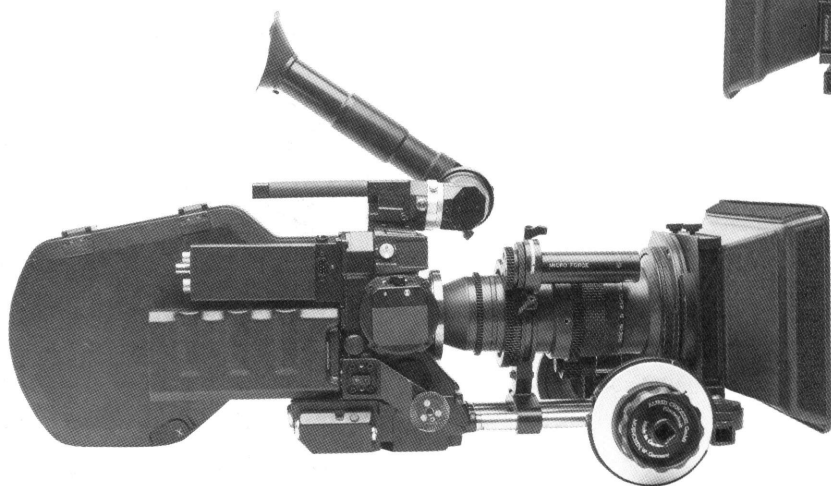
Digital Highway Demo

Industry leaders from a broad range of high-technology sectors participated in the first-ever floor-wide network at the 1994 National Association of Broadcasters (NAB) Conference. The "OMF Media Highway" demonstrated the use of the Open Media Framework (OMF) Interchange, an industry-endorsed standard for the digital exchange of multimedia information, and a key enabling technology for an all-digital media production environment.

Creators of multimedia productions often encounter incompatibility

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Next time you need to decide
what kind of 16mm camera to rent
and where to rent it,
ask yourself this —



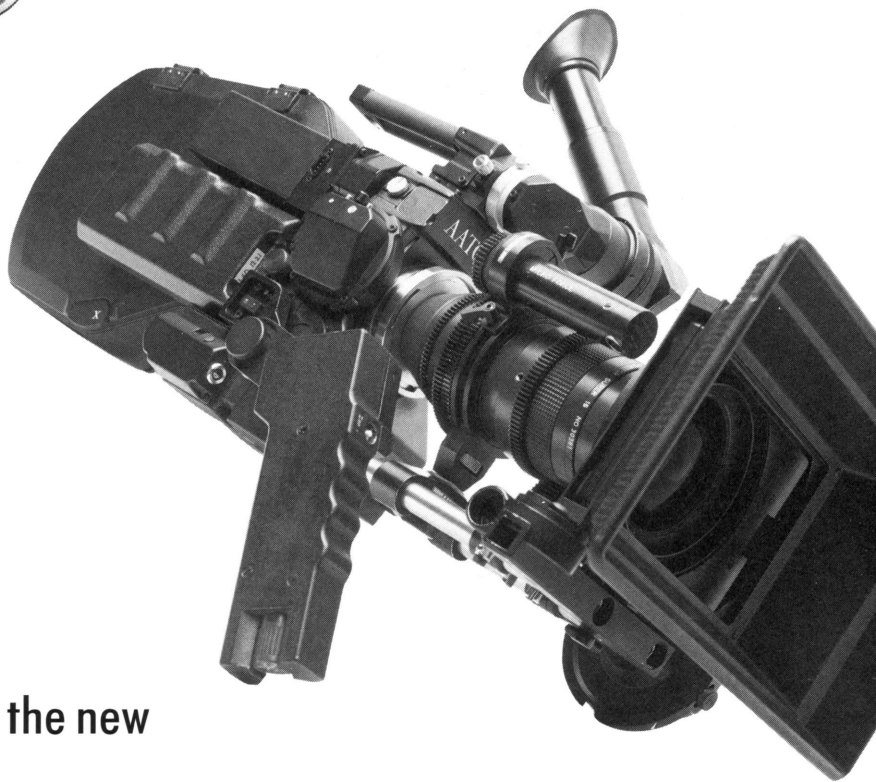
Pictured:

Aaton XTR-Prod and Canon 11.5-138mm Super 16
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motor bracketry and handheld Microforce control.
Zoom bracketry for Canon 8-64mm and
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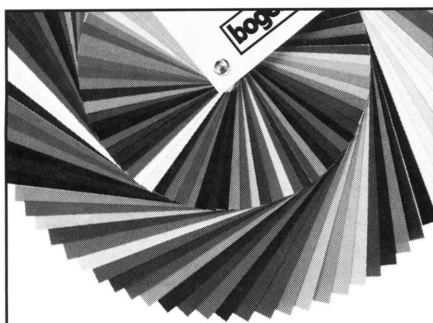
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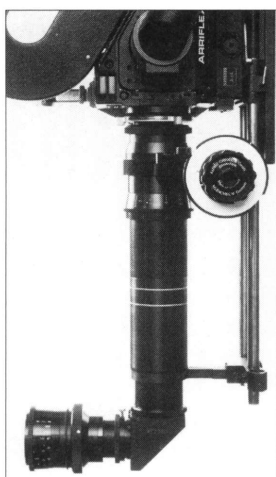
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when working with multiple software applications running on different platforms. OMF facilitates a more efficient and higher-quality production process, and provides multimedia professionals with an improved creative environment by making it easy to move among applications and platforms. The OMF Media Highway at NAB showed OMF to be a viable solution which has been adopted by the industry's leading platform and software vendors.

Such companies as Alias Research, Apple Computer, Inc., Avid Technology, Digidesign, Hewlett-Packard Company, Newswire 2000 LLC, Pinnacle Systems, RGB Computer & Video, Inc., Silicon Graphics, Inc., Studer Editech, The Synclavier Company, Timeline Vista and Vertigo Technology, Inc. participated in the OMF Media Highway and demonstrated the OMF Interchange in action. Other companies not connected to the network but demonstrating OMF Interchange support include Aware, Inc. (Sound Ideas booth), Discreet Logic, Intelligent Resources Integrated Systems, Parallax Graphics, and Video Fusion, Inc.

The data exchange occurred over a fiber optic-based Ethernet network, seamlessly integrating applications producing graphics, animation, text, video and audio files to simulate a media production environment. A Silicon Graphics Indigo II server served as a focal point for the transfer and storage of Open Media Framework Interchange files.

Open Media Framework Interchange was recently selected by the Interactive Multimedia Association (IMA) as the underlying technology in its recommended practice for data exchange, currently being drafted. The IMA is an international trade association with more than 290 members representing all areas of the multimedia industry.

More than 150 leading manufacturers of hardware and software are involved in the process of continually developing the OMF standard.

For information: OMF Developers' Desk, (800) 949-OMFI.

Polish Film Festival

From November 22-28, the city of Torun, Poland hosted Camerimage '93, the First International Film Festival of the Art of Cinematography. The 25 films presented at the festival were selected for their remarkable visual qualities by spe-

cialists from this year's festivals in Berlin, Cannes, and Venice, or were nominated by societies of cinematographers from Europe and the U.S.

The 11 films and cinematographers which entered the competition were *The Piano* (Stuart Dryburgh), *Magnificat* (Cesare Bastelli), *L'enfant Lion* (Jean-Michel Humeau), *The Age of Innocence* (Michael Ballhaus, ASC), *The Smell of Green Papaya* (Benoit Delhomme), *Farewell My Concubine* (Gu Changwei), *Falling Down* (Andrzej Bartkowiak), *The Cement Garden* (Stephen Blackman), *Howards End* (Tony Pierce-Roberts), *The Baby of Macon* (Sacha Vierny), and *Das Sommeralbum* (Achim Poulheim).

The jury consisted of jury president Vittorio Storaro, ASC; Victor Kemper, ASC; Ryszard Horowitz; Slawomir Idziak; Witold Sobocinski; Jerzy Plazewski; and Janusz Kaminski.

The Grand Prix of the Golden Frog was granted to Stuart Dryburgh for *The Piano*, directed by Jane Campion. The jury also granted a special award to Gu Changwei for the photography of *Farewell My Concubine*. The directors of the festival gave their award for life achievement to Sven Nykvist, ASC. Other highlights of the festival were a retrospective of Nykvist's work; special presentations of several parts of *Roma: Imago Urbis*, photographed by Vittorio Storaro; the screening of *Sunrise*, the first film to win the Oscar for cinematography; and special presentations of the films *Visions of Light: The Art of Cinematography* and *Konig Der Letzten Tage*.

The presidents of many national societies of cinematographers also attended: Victor Kemper of the United States, Harvey Harrison of Britain, Pierre L'homme and Stephane Pozderek of France, Hennig Kristiansen of Denmark, Wolfgang Treu of Germany, Alessandro D'Eva of Italy, Jaromir Sofr of Czechoslovakia, and Tote Trenas of Spain.

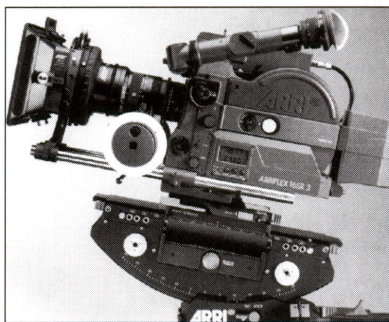
Other featured guests were cinematographers Adam Holender, ASC, Edward Klosinski, Dick Pope, Francois Lartigue, Jean-Michel Humeau, Witold Stok, Nancy Schreiber, Jost Vacano, ASC, Stephen Blackman, Jurgen Juges, Achim Poulheim, Pierre-William Glenn, and Theo Blerkins.

Watch for a report on Camerimage '93 in a future issue of AC.



16 MILLIMETER BORN AGAIN

Are you prepared to place your bet on the up-and-coming television format of the 1990s? Do you like D1? D2? D3? DCT? M1, M2 or M5? Betacam, Betacam Digital or Betacam SP? PAL, SECAM, NTSC, HDTV? Would you believe **16 millimeter film**? At this late date, 16mm is mounting what the producers of the recent Showbiz Expo Conference called "a surprising challenge to video origination."



The ARRI 16SR-3

In a 1986 article on Arriflex camera developments, Richard Miller, then Editor for Backstage, quoted Arriflex President Volker Bahnemann as saying, "the ideal ... would be a 16mm camera, shooting at 30 fps with a time code system built in - it would be perfect for our current television standard." While 30 fps did not find broad acceptance, probably for economic reasons, 16mm most certainly finally has.

It has been somewhat of a mystery to us that, for the last twenty years, 16mm film has not been used for more U.S. dramatic television productions. By the mid-1980s, 16mm appeared on American TV almost exclusively in nature films and music videos. European television, on the other hand, never stopped using 16mm for much of its programming. Fortunately, this European market activity continued to drive the advances in ARRI 16mm camera design, which now seem to be so perfectly timed with the regrowth of our own 16mm market.

After years of predictions that tomorrow's format of origination for TV series would be HDTV, what do we find?

• *The Larry Sanders Show* • *The Young Indiana Jones Chronicles* • *In the Heat of the Night* • *The Commish* • *Walker, Texas Ranger* • *Dr. Quinn Medicine Woman* • *Untouchables* • *Against the Grain* • *Bakersfield P.D.* • *The X-Files*

These series of the 1990s, among others, have been shot in that "born-again" TV medium, 16mm film, some in the standard 16 format and others in Super 16. Meanwhile, the video format wars continue unabated, and Super 16 is poised to become the preferred medium of origina-

tion for HDTV transmission. Why is this happening now?

- Continuing development in digital video technology has actually made **film** more viable. This ongoing revolution has created upward pressure on production values, making a high-quality original image more crucial.
- Major advances have occurred, upgrading the entire 16mm film technology chain: truly silent systemized production cameras, like the 16SR-3; better film emulsions; practical time code systems for film.
- Non-linear off-line editing systems and improved 16mm telecine gates have produced major time and cash savings in post-production.
- Film remains unrivaled as an archival medium. At a time when a universal video standard appears to have been a pipe dream, producers value the protection for the future that an original negative offers, independent of the present means of transmission or exhibition.
- Super 16's 1:66 aspect ratio is a close match to HDTV's proposed 16:9. Its efficient use of the negative area assures economy plus the required resolution and contrast for future imaging standards.

There are more reasons for this renaissance of the 16mm format, ranging from the purely economic to such artistic intangibles as "feel" and "look". Whatever your reasons may be, we are doing our best to make your choice of cameras our 16SR-3.



ARRI 16SR-3: A Camera for the 90s

Based on concepts rigorously tested in previous 16SR generations, the 16SR-3 incorporates and, in some cases, introduces motion picture technology for the 1990s. We are pleased to find that the 16SR-3 is meeting the highest expectations of individual owners as well as rental companies around the world. In our first year of experience with the 16SR-3, we have heard users cite the same reasons for choosing this camera again and again: overall design integrity, mechanical detail and finish, and positive experience with earlier 16SR cameras. Key features include:

- **Exceptionally Bright Viewfinder**, ARRI Swingover design, completely covers the Super 16 format, and provides the largest and brightest finder display available in 16 mm.
- **Arriglow Frame-Line Illumination** is bright and variable in intensity for accurate composition of scenes in low-light situations, or with heavy use of ND filters. Interchangeable viewing screens are available for all aspect ratios and combinations.
- **ViewFinder Extension** is lightweight and bright with switchable 2x magnification to assure perfect focus.
- **Extremely Quiet Operation** is reliable even under the most demanding conditions.
- **Pin Registration** in the multi-link

(Continued on page 23)

Computer Meets Movie Camera:

New ARRI LCC Laptop Controller Saves Time on the Set

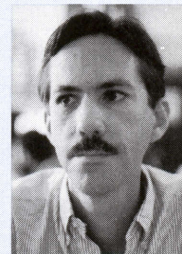
Camerapersons tend to have strong feelings about the hardware that surrounds them, because their careers often depend on it. When it comes to computers, they seem to fall into two groups. Some have already computerized their lives off the set and are impatiently waiting for the movie camera to catch up with them; others prefer the dependable, repeatable way that mechanical devices do their jobs. The new ARRI LCC (Laptop Camera Controller) is great news for both camps.

The LCC provides the camera crew with complete, programmable control of Arriflex 16SR-3 and 535 camera systems, AND enables the camera assistant to do film accounting and create reports with automatic data entry from the camera.

To the No-Bytes-Here Crowd, we say: Suppose we make the most complex speed/shutter changes easy to plan, execute and repeat with absolute precision? Suppose we keep curious producers away from the camera by giving them a remote screen full of camera status information? (Continued on page 23)

Stephen C. Chamberlain A Dedication

This issue of the *ARRI Update* is dedicated to the memory of our friend and colleague **Stephen C. Chamberlain**, who passed away on January 18, 1994. Steve produced all prior issues of this publication and all of ARRI's public relations materials during his ten years as Manager of Corporate Communications at Arriflex. We miss Steve's warmth and humor, as much as we miss the professional hand that helped to shape our image for such a long time. We know that Steve's many friends in the industry join us in extending our deepest sympathy to his loving family.



New ARRI Lens Control System Saves Lens Life

The ARRI LCS Lens Control System integrates any lens into the era of precision control. Whether you need a simple, precise zoom or a triple-axis controller for focus, iris and zoom, the ARRI LCS can meet your needs superbly.

Part of ARRI's new advanced accessory program, the LCS is mounted on standard 15mm or 19mm rods. It can adapt itself to any lens in your inventory. How? The LCS Control Unit calibrates itself to each individual lens, sensing and recalling the end stops for focus, iris and zoom. This substantially reduces wear and tear on lenses. It also creates smoother zooms, regardless of speed, completely eliminating the "bump" into the mechanical end stops.

**Special
Introductory Offer**

ARRI
Lens Control System
(See end of article for
more details)

Surprisingly, in its minimum configuration as a simple zoom control, the LCS is priced competitively with other control products which don't offer these capabilities or potential for expansion.

The LCS's microprocessor controls make it easy to set a specific range or speed for any move. All commands are repeatable, easily changed, and precise. You can vary the range of a zoom between two specific points so that you never "miss" or overshoot a mark. You can preset the range of a focus knob to hit two defined points every time. The LCS is assistant friendly, since it puts complete lens control at the assistant's fingertips.

Commercial customers are finding
(Continued on page 24)

PREMIERING: The New ARRIFLEX 535B

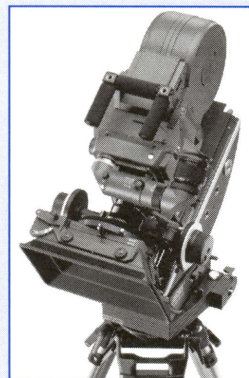
The first generation of feature films shot with ARRI's new 535B camera went into release for the 1993-94 winter season. The hand-held camera work that lends a documentary feel to *Schindler's List* has drawn critical praise for director Steven Spielberg and Cinematographer Janusz Kaminski, and we're proud that they chose ARRI 535 and 535B cameras for what's being hailed as a landmark production. *Schindler's List* was the first feature film released that employed the ARRI 535B.

The 535B is the compact companion camera to ARRI's eminently successful 535 camera system. Smaller and lighter than the 535, the 535B shares the 535's modular design and many of its most-used features. Its sophistication in a small package has

made the 535B an instant success as a "B", or even an "A" camera with cinematographers around the world.

The 535B's lightweight Swingover Viewfinder pivots on two axes, with full left- or right-side viewing and an upright image in any position. The entire finder is easily removed without tools and accepts a 100% video module for Steadicam use. It has quick-change beam splitters, and slide-in masks for illuminated in-finder format markings.

Operating at crystal-accurate speeds from 3 to 60 fps, the 535B has the same optical printer-accurate move-



The new ARRI 535B

ment as the 535. Its manually variable shutter adjusts from 11° to 180°. The 535B retains much of the 535's microprocessor controlled electronics, which allow pre-setting of film speeds and time code, and full LCD read-outs. An ergonomic handle

grip and redesigned magazines are utilized by the 535B, and modular accessories make most of the 535's advanced features available for the new ARRI camera.



ARRI Lights and Cameras On Much Ado About Nothing

The challenge for DP Roger Lanser was to help actor/director Kenneth Branagh find a fresh visual style for a four hundred year old classic. Branagh and Lanser happily found a "magical" location in Tuscany to bring to life Shakespeare's sixteenth century Messina. Branagh made extensive use of the Steadicam to provide fast-paced movement in what is an extremely conversational comedy. Lanser's main camera was the ARRI 535, with an ARRI 35BL-4s used by the second unit.

Since most of the picture was shot outdoors, high contrast was a major problem for Lanser, who used ARRI HMI lights to punch into shadow areas, compensating for the bright Italian sunlight. The production lighting package was made up pri-

marily of ARRI luminaires.

In a recent interview with the ARRI News, a publication of our sister company, ARRI GB Ltd., DP Roger Lanser made the following comments about *Much Ado About Nothing*:

"Kenneth Branagh and I started recess for *Much Ado About Nothing*
(Continued on page 22)



On the set of MUCH ADO ABOUT NOTHING

Little Buddha: Bertolucci and Storaro Mix 35mm and 65mm for Dramatic Results

In *Little Buddha*, director Bernardo Bertolucci's ambitious 1994 release, the centuries-old story of the life of Buddha is depicted as told by a twentieth-century lama to three modern children. In order to create high contrast between the contemporary story and the lama's vivid recreation of the Buddha tale, cinematographer Vittorio Storaro, AIC, ASC, took an approach that is the very opposite of the typical motion picture flashback technique: instead of presenting Buddha in the conventional dreamy haze, he intensified the dramatic visuals of these sequences by shooting them in 65mm, and the rest of film in 35mm.

(Continued on page 24)

Cinematographers' Secret: VariCon

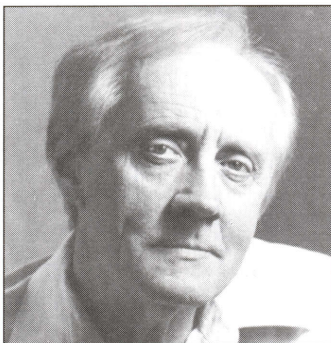
"I am amazed and will never understand why everybody does not get wise to the fact that VariCon makes the D.P.'s life so much easier and shooting so much quicker and more creative." So says multiple Oscar winner Freddie Francis, BSC. Francis, who was involved in the development of Lightflex, a forerunner of the current VariCon system, expressed his delight with the latest version of the product. A growing number of cinematographers have discovered the VariCon secret of contrast control.

VariCon is a simple method of variable in-camera contrast reduction that does NOT affect color temperature, normal skin tone, highlights or sharpness. Among its fans are Director of Photography Rob Draper, A.C.S., who has just completed three movies for Universal Pictures that will be released directly to television under the title *Another Midnight Run*. "I will never shoot for TV again without VariCon", states Draper.

"TV requires that you work fast", Draper explains. "The key light is easy to set; the fill light is much trickier. VariCon controls the shadows, allowing me to use little or no fill light. Also, at telecine you find that you have a much flatter negative if

difference is astronomical."

VariCon is a lightweight, compact unit that fits easily into the filter slot



Stan Loth, cinematographer and ARRI design engineer, who developed VariCon and Obie Light

of any 6.6" x 6.6" matte box. It allows simpler and more precise scene-to-scene contrast reduction than flashing, and greater image sharpness than low contrast filters. VariCon also permits subtle coloring of the film's shadow areas without affecting the highlights.

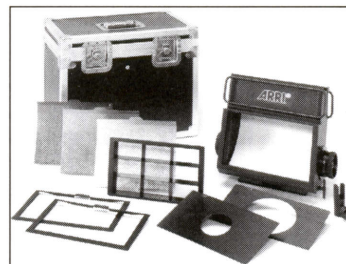
(Continued on page 22)

New ARRI Obie Light Systems Now Available

An "OBIE" is a small camera-mounted fill light, traditionally used to impart a soft glow to a face or an object photographed at close range. There is nothing traditional about the design of ARRI's new Obie Light System, developed by noted cinematographer Stanislaw Loth. ARRI's Obie maintains a perfectly even field of illumination and constant color temperature as its intensity is varied over a remarkable 3 1/2-stop range.

The ARRI Obie utilizes a highly efficient patented lamp and interchangeable reflectors to produce a variety of looks, and its smooth, quiet operation matches the precision of other ARRI camera accessories. Developed to complement the ARRI camera system, the Obie Light mounts conveniently on current ARRI Matte Boxes, close to the lens axis.

Our more inventive clients have also found the ARRI Obie Light exceptionally useful in a variety of tight spots OFF the camera. Reached on location in Mexico, Director of Photography Rob Draper, A.C.S.,



The complete ARRI Obie Light System.

said: "I like to use the Obie off the camera, because it's such a compact, easy to control variable light. We use it a lot for dolly shots, and today we're using it to light the interior of a limousine."

The ARRI Obie Light System is available for immediate delivery.

Packed in a heavy duty shipping case, the system includes accessory holder, four reflectors (hard, soft, dark blue and light blue), two gel frames, eggcrate, two eye light masks, mounting bracket, stand adapter, AC cable with in-line switch and two custom-coated 500W 120V AC lamps.



**"I will never
shoot for TV again
without VariCon"**

Rob Draper

you used VariCon. This assures that you will have adequate shadow detail without having to bump the blacks. These days it is very common to telecine off an interpositive, in order to protect the original negative. The interpositive tends to be more contrasty. Use of VariCon leaves you with a lower contrast interpositive. The

Proposed Standard: 23.976 Frames Per Second

Decades of competition between film and video have proven film to be an enduring, superior imaging technology, for both large-format exhibition and the origination of product for television.

As we all know, in this country film is traditionally shot at 24 fps, and NTSC video operates at 29.97 fps. Various approaches to reconciling this difference have been taken over the years. Recently, the extensive use of off-line video editing for film has made it necessary to resolve the fps discrepancy in production, rather than in post. Shooting at 29.97 fps has proved too expensive a solution, requiring that 25% more film be shot and processed.

The film camera continues to evolve and is succeeding even when measured by the highest standards of competing imaging systems. But as in all technologies, advances bring new challenges. Previously, the output of the film camera's video assist was used solely for viewing general picture content,

and provided an adequate visual reference for immediate use by production personnel. But these days the video output from the film camera and its associated time code are being used as the basis for computer-based filmless editing in the NTSC environment, and it is here that frames are actually LOST if the irreconcilable phase relationship between 24 and 29.97 fps is not addressed.

We propose a standard frame rate of 23.976 fps, rather than 24 fps, for use when shooting time coded film for electronic post. This would provide a precise phase relationship to 29.97 for editing purposes, plus the economy and traditional "look" of film shot at 24 fps. We see the future of digital film editing, and know that it will demand that video replicate film with absolute accuracy.

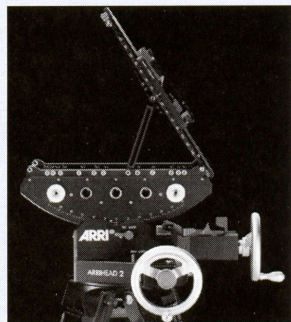
We would very much welcome comments on this subject. Please share your thoughts with us.



Smaller, Lighter ARRI Geared Head

It never hurts to improve on a good idea, and that's precisely what ARRI has done with the Geared Head 2.

The original ARRI Geared Head, introduced in 1988, quickly became an industry standard because of its patented swingout tilt mechanism, V-rail guide, precision steel-chain drive and double-hinged, reversible-tilt wedge-plate. The ARRI Geared Head 2 handles as much weight as its predecessor and retains its



The ARRI Geared Head 2

patented features, but is a remarkable nine pounds lighter! Also new, smaller diameter, contoured wheels and snap-on/off side-carry handles enhance the new head's design.

The ARRI Geared Head 2 will support all Arriflex 16, 35 and 65mm cameras as well most cameras made by other manufacturers. Although it debuted less than a year ago, the ARRI Geared Head 2 is already widely available at rental houses throughout the world.



BRIGHT FUTURE: The ArriSun 40/25

Of course we predicted success, as soon as we saw the versatile performance and advanced design of this dual wattage HMI PAR fixture. But even we were taken aback by the tremendous immediate demand for this 1993 addition to the ARRI Lighting line. Fortunately we've recovered from our surprise, and availability for 1994 looks good.

The ArriSun 40/25 features:

Dual Wattage: Used with any dual wattage ballast, the ArriSun 40/25 delivers 2500 or 4000 watt performance by simply changing the lamp. No adapters or modifications are necessary.

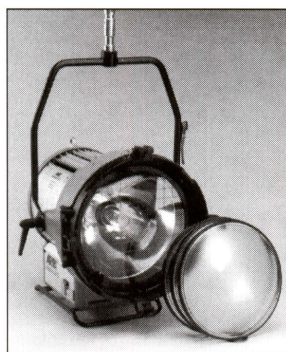
Unique Focusing System: Versatility simply not possible with conventional PAR fixtures is integral to the ArriSun 40/25. The beam control system allows adjustment from an intense center to a smoother, more even field.

Larger Lenses: Custom designed to match its reflector, the ArriSun 40/25's

12" lens produces up to one stop more light than competitive fixtures.

Positive Lamp Lock: Installing a single-ended HMI lamp can be an awkward job, especially when you have to push the lamp against spring-tensioned lampholders. The ARRI positive lamp lock system has a socket which opens wide for easy installation and closes tightly to insure excellent electrical contact. An added safety measure, the system's safety cut-out switch ensures that the system will not ignite unless the lamp lock is closed.

The ArriSun 40/25 has been approved by the Los Angeles Electrical Testing Laboratory. It is available from rental houses throughout the country, or may be purchased directly from Arriflex. For additional information contact Charlie Davidson in New York or John Gresch in California.



The ArriSun 40/25



Much Ado About Nothing (Continued from page 20)

in March 1992 after having just completed *Peter's Friends*, another film I shot with the Arriflex 535 cam-

70% of the film is set outdoors during a few days in summer, it was continually difficult to plot when to shoot which scene. Added to this was Ken's love of the Steadicam, which proved invaluable at capturing the cinematic flow which this piece needed, but which caused a problem for lighting. You can imagine the difficulties involved in maintaining consistent light levels when the camera is moving around a 320° arc. We also had to keep a balance between the scorchingly bright exterior, photographing porcelain skinned women in white summer dresses and cool, dark interiors but all of the problems were in some way overcome."

"I chose Arriflex cameras for the film because of their flexibility and ruggedness, not to mention the features they offer. The 535 never let us down, nor did the 35BL4, which served us well not only on the Steadicam, but also as our second unit camera."



*"I chose Arriflex
cameras for the film
because of their
flexibility and
ruggedness, not to
mentioned the features
they offer..."*

Roger Lanser

era. The search was on to find the ideal location for *Much Ado* and we found ourselves at the magical Villa Vigna Maggio in the beautiful Tuscan countryside..."

"Chasing the hot Italian sun around a garden bordered on two sides by 90 feet high cypress trees was certainly one of the more challenging aspects of filming. As

Cinematographers' Secret

(Continued from page 21)

VariCon's output can be measured for accurate repeated use with its digital meter set to the selected F-stop and EI of the film stock used. For example, the range with EI 100 negative is up to F8,

*"really quite a marvel...
streets ahead of all
previous models"*

Freddie Francis

without an ND filter. VariCon will accept all lenses that can be used with a 6.6" x 6.6" matte box, including zoom lenses. It features a slide-in gel filter holder, and a holder for one glass filter. Its two 50W, 12V halogen bulbs can be powered at 110V, 12V or 24V.

The latest version of VariCon, which Freddie Francis describes as "really quite a marvel... streets ahead of all previous models", is immediately available for sale or lease directly from ARRI and through major ARRI distributors worldwide.



Computer Meets Movie Camera: (Continued from page 19)

mation? Suppose we streamline some of the paperwork that slows you down? These are a few of the ways that the LCC can simplify your life. It's a snap to use. And, despite its name, it doesn't have to sit on your lap; some customers are stand-mounting it, but it's small enough to fit anywhere.

- The LCC displays full Standby or Working status information on the 16SR-3 or 535 camera to which it's connected, and stores frame rate information.

- Used with the 535 it also stores shutter opening data, and allows the crew to create and edit any number of speed/shutter changes.

- Speed/shutter change programs can also be created on the 16SR-3 with the LCC and the new Iris Control Unit (ICU), which will maintain correct exposure.

- Given a camera speed, the LCC will auto-calculate the shutter opening required to provide for constant exposure.

- The "GO TO" feature runs the 535 forward or reverse to any particular frame.

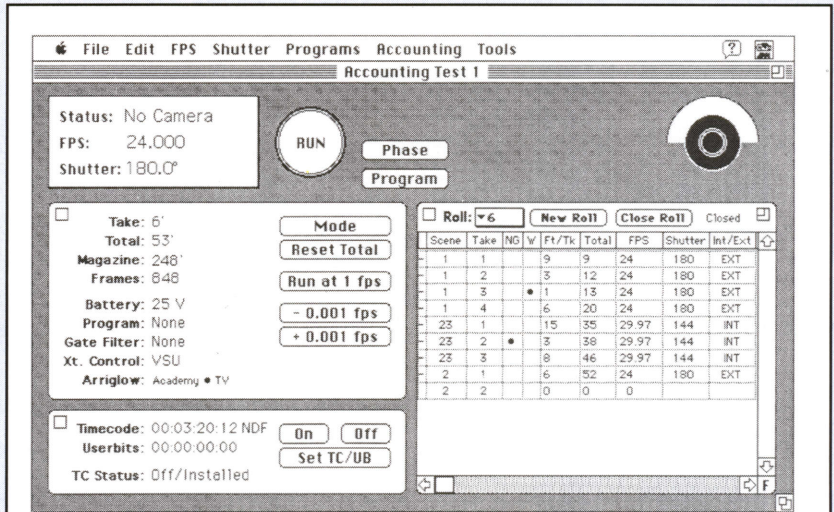
- A shutter icon on screen, which shows the angle of the shutter opening, rotates when the camera is running.

- The LCC permits you to reset film counters and control Camera Mode, Phase, Time Code and other parameters.

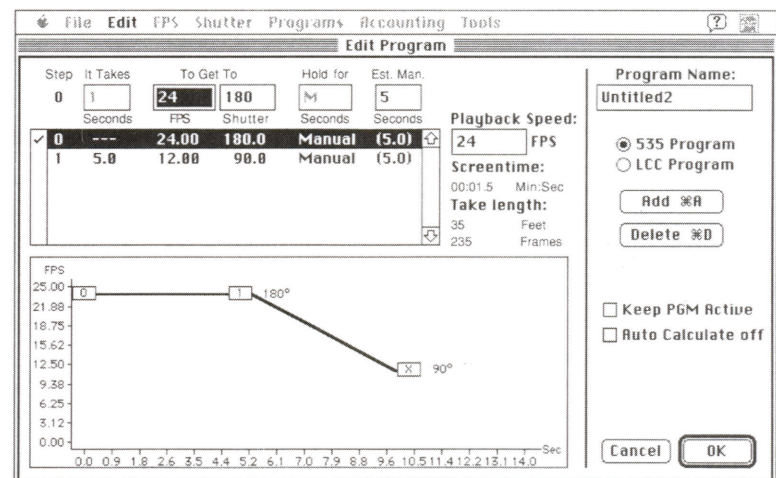
- The LCC can record footage information directly from the camera, and automatically update the Camera Report. It can print a Small Camera Report with Scene, Take, Footage, Total Footage, No Good and Waste takes, FPS, Shutter Angle, Interior or Exterior, MOS indication, plus notes and details of any program that the LCC has executed during any specific take. It permits the assistant to circle takes, reconcile edge numbers, indicate when a gate filter was used, and note time code and each take's beginning and ending frame numbers.

- The LCC logs all film received, exposed and sent to the lab during production. It has a Received Raw Stock log, an Available Raw Stock log, and an Exposed Film log.

For Computer Buffs Only: The LCC software runs on the powerful Macintosh PowerBook. We probably don't have to tell YOU about the exciting potential this configuration offers, but we'll share a few of our dreams for the future of the on-set camera computer with you and hope that you will suggest others to us. How about on-line camera operation and service manuals? On-line camera inventory? With a hypercard link we could add unlimited comments to the camera reports... and yes, we've been approached about a DOS version.



Camera status/Control display on LCC



LCC Shutter Program

16 SR-3

(Continued from page 19)

film pull-down movement gives rock-steady images regardless of film emulsion, ambient temperature or magazine condition.

- **Positive Guide and Lock System** attaches the magazine, with two registration and retaining points, at the camera aperture and the rear of camera base.
- **Fixed Film Channel Rails** fully line the film path, completely eliminating weave.
- **Switchable Format**, 16 or super

16, requires no additional aperture.

- **PL Lens Mount** allows simple conversion from 16 to Super 16 and permits the use of all commonly available 35mm format lenses.
- **Adjustable Shutter** offers standard 180°, 172.8°, 144°, 135°, 90° and 45° openings.
- **Time Code For Film** is recorded in the magazine, assuring proper TC exposure when working with multiple emulsions, as well as system redundancy.
- **Large LCD Display** provides highly visible two-line readout, with individual mode display for camera status, camera fps speed change, in standby and while running.

- **Flicker-Reduced Low-Light CCD Color Video Assist** offers "freeze-frame" storage capabilities and 3/2 pull-down emulation for direct editorial use of video output. Mechanical/optical video interface with neutral C-mount termination allows easy interface of other 1/2 inch B&W or color video cameras. Interchangeable beam splitter ratios are available for the video assist.
- **Jam SYNC Capability:** Time code can easily be jam-synced to or from other TC accessories like Nagra, DAT or TC-generating VCR, without additional electronic converter boxes or accessories.
- **LCC (Laptop Camera Control)**

Program, which runs on the Apple PowerBook computer, can be used with the 16SR-3, allowing ramping/programming of camera speeds and functions, programming of TC and user bit information, production data, camera reports, raw stock inventory and more.

A solid, reliable camera with worldwide support, the 16SR-3 is an integral part of the ARRI Camera System, which ranges from a simple geared head through the most sophisticated computer controls in the market today. The ARRI 16SR-3 is THE camera to take 16mm production through the 1990s and into the millennium.



Little Buddha (Continued from page 20)

We are indebted to writer Bob Fisher for permission to quote from an article that he has prepared for *Cuts* magazine about this extraordinary project:

"The 65mm frame is

much more honest

with the audience in

its presentation of

wide-screen images."

Vittorio Storaro

"When we first discussed making a film about the life of the Buddha, I thought of it as a project that we would undoubtedly produce in the 65mm format," Storaro recalls. "By that time, I regretted that some of my earlier films, including *Apocalypse Now*, *Lady Hawk*, *The Last Emperor* and *Tucker*, were produced in CinemaScope rather than 65mm format. The 65mm frame is much more honest with the audience in its presentation of wide-screen images."

Producer Jeremy Thomas was reluctant to film *Little Buddha* in 65mm format because he thought it would cost too much for the modest budget to absorb. Bertolucci was concerned that creative limitations would be imposed by the large format cameras and requirements for more intense light to carry the extreme depth of field. Storaro believes those perceptions

are based on memories of the state of the art as it was practiced 20 years ago. He says vast improvements in 65mm cameras and lenses, artificial lighting and ultra-sensitive modern film stocks have radically changed the state of the art.

Production was underway in Katmandu, where the cast and crew were ready to film the story of Buddha, when Storaro convinced Thomas and Bertolucci to use the 65mm format for this segment. "When I explained my idea for shooting the flashback sequences in 65mm format, Bernardo became very excited. He immediately recognized how the contrast in the quality of images would become part of the story," Storaro says.

Storaro assured Thomas that he would be able to follow the original shooting schedule, and he would require no additional lighting units, crew or time. Storaro telephoned Arriflex, Kodak, and Technicolor Labs that evening. Despite the short notice, they all agreed to cooperate.



The ARRI 765, used for 65 mm sequences in *LITTLE BUDDHA*

ate. Within a few days, three Arriflex 765 cameras with a full complement of 65mm lenses, and a supply of Eastman EXR 5293 and 5296 film in 65mm format were delivered to Katmandu. Technicolor Labs provided 35mm dailies made

from 65mm negative on a timely basis.

The camera crew had one evening to familiarize itself with loading and operating the 65mm equipment. Other than the fact that the cameras are more cumbersome and heavier than the Arri 535 cameras used to shoot the rest of *Little Buddha*, they share most main features.

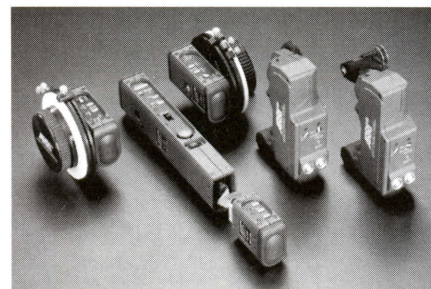
Lens Control System

(Continued from page 20)

the optional LCS Memory Module invaluable for product and tabletop work, since it can record and play back sequences of moves in single, double, or triple axis format.

This means that shots requiring complex lens changes can be rehearsed, recorded, and executed with ease. Each separate element can be played back exactly as it was recorded, with each pause, change of speed or variation faithfully duplicated. With the press of a single button, the LCS with Memory Module can play back a series of moves lasting up to eight minutes!

The LCS can directly access the electronics in the 535 and the 16SR-3. Used in conjunction with the sophisticated ramping programming in current ARRI cameras and with the ARRI LCC Laptop Camera Controller, the ARRI LCS Lens Control System offers today's filmmaker unparalleled possibilities for complete camera control.



Components of the ARRI LCS Lens Control System

ARRI LCS Lens Control System

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Includes:

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- Power Supply Module LC-S1 for 12V or 24V DC operation

SPECIAL INTRODUCTORY PRICE \$3,998.00

Regular Price: \$4,900.00



"When we started filming the next day, many people in the cast and crew didn't realize we had switched to 65 mm cameras," Storaro says. "We didn't make any changes in lighting, camera movement or composition. There were few limits imposed by the cameras."

We at Arriflex are gratified that the integration of our camera systems through the full range of professional formats can help filmmakers like Bertolucci and Storaro to realize such remarkable cinematic visions as *Little Buddha*.



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Film-to-Tape: A New Ballgame

by Fritz Roland

In the last couple of years, video postproduction technology has undergone vast changes that are affecting the entire perception of the process, particularly as it relates to film-originated material. Many new devices have flooded the market, generating a maze of technical information and procedural scenarios that have become the source of much confusion and controversy. Given the complexity of the subject, as well as my inclination to be long-winded, I've asked some filmmakers to help identify both the subtle and the controversial issues of today's video postproduction.

First, a bit of background. Film production has been around for almost 100 years and, from a technical standpoint, has changed very little from the beginning. For the first 20 to 30 years after video arrived on the scene, the filmmaker was essentially unaffected by the new technology. The transfer of film material to television was strictly a distribution issue that could easily be accommodated by broadcasting a release print.

Most filmmakers viewed video technology as inferior and therefore never allowed it to invade time-tested and proven film processes. Without a doubt, the projection of high-quality films on a huge screen is an awesome viewing experience that will not be rivaled by any video format in the foreseeable future.

Nonetheless, television has come to dominate the market so thoroughly that nearly every form of visual entertainment, short of first-run features, is destined to be shown on the small screen. By contrast, films made for projection in the non-theatrical arena are practically extinct, an indisputable fact that has caused many people to reconsider the entire postproduction process as it relates to film-originated material.

From the standpoint of sheer quality, one must conclude that film is

still the ideal shooting medium and that a transfer from the original negative (by way of telecine) is the ideal method to get to video.

All other considerations, such as cutting workprint versus random access offlining, auto assembly, keycode, one-light transfers, where and how to sync, and tape-to-tape color correction, are rightly being reexamined. Many new devices are available that can dramatically affect the process, both creatively and fiscally. Unfortunately, problems can often arise when introducing a new element in the posting sequence. Since most steps in the process are interdependent, one mistake can easily turn the project into a nightmare.

It's essential for the producer to have a clear understanding of the process from beginning to end. When seeking outside help, remember that thousands of careers as well as companies of all shapes and sizes (including mine) have grown around these processes. Each one of them is likely to put their own self-serving spin on the issue. Needless to say, these conflicts of interest create distortions in the process and should always be considered.

At this point I'd like my filmmaker friend to dream up a project that's typical in his area of expertise. Perhaps then we can discuss the different options.

OK, let's assume I'm about to do a one-hour program on, say, a nature subject. We're going to shoot it in Super 16 with a fairly high shooting ratio; let's say 30:1. Normally I would make a work print and cut it on a Steenbeck, making sure I mask off the sides. I plan to make a normal TV release first.

My audio would all be transferred to 16mm full-coat. I would build all my own tracks and then go into a final mix. Meanwhile, the negative will be cut; the scenes will be pulled and assembled by a negative cutter who will prepare the

material for an autoconform. All that's left is the transfer and final C-mode on-line. It's all quite foolproof and safe. Now, you tell me — why should I change all this?

Let me ask you a few questions. The fact that you're shooting in Super 16 suggests that you expect this material to have some kind of afterlife.

I would certainly hope so. The cost of original production is too high for a one-shot deal, which is why I'm doing it in Super 16. When the time comes, I'll be all set for a high-definition transfer and get the benefit of another release.

What about international distribution? Also, this being a nature show, wouldn't it be appropriate for a library or stock footage company?

It's probably safe to assume that there will be cut-downs or re-edits for foreign distribution. Obviously, if it's good-looking material, the outs might be salable as stock footage or they could be used for some kind of "interactive" programming as well, but I certainly wouldn't want to invest any extra money on this.

What you're describing is a situation that is becoming more and more common these days. Given this set of circumstances, I would indeed make the case for a different posting scenario. High definition notwithstanding, the plan I'm proposing is based on the principle that your negative should never be cut (unless you need a print) and a video transfer of all your original material should be the "source" for any future applications.

To begin with, I would transfer all the material to tape using the "component" output of the Rank and the "component" input of the recorder. This is an essential criterion for maintaining the highest quality.

During the transfer you would correct all the scenes, making them look as good as possible without massaging

them to the nth degree. Since we have no context in which to put the material at this stage, minute corrections would be a waste of time and money. This level of correction requires about three times the running time.

Are you talking about a "best light?"

No. A "best light" is basically a "one light." Such transfers are often inadequate for further corrections in tape-to-tape, which of course is an integral part of this process. The level of correction I'm talking about will bring every scene into the appropriate ballpark, taking care never to clip the whites or to crush the blacks.

Is a tape-to-tape correction really as good as film-to-tape?

Tape-to-tape corrections performed on a high-end (component digital) device are every bit as effective as corrections at the transfer stage. After all, you're manipulating the image electronically in both instances. Furthermore, balancing the look of your show after the final cut is far more effective than doing it during the transfer, when you have no context in which to put the scenes.

What format do you record on?

We use any one of three component formats: D-1, regular Betacam, or the new Digital Betacam.

Which one do you recommend?

For the film transfer, I think the decision is a hair-splitter. The two digital formats look essentially the same, although the D-1 might have a slight advantage because it doesn't compress the signal. However, I don't think it's worth the difference in price, given the amount of material we're talking about. The regular Betacam, on the other hand, is more economical, and some folks consider it to have a "mellower" appearance than digital recordings, more like film.

What about generation loss if I use the regular Betacam?

The generation loss associated with analog recordings is a moot point since all the subsequent work can be done digitally. What's important is to remain in the component domain throughout the entire process. The moment you introduce a composite recording (D-2, one-inch) or, for that matter, any kind of composite device (composite switchers, DVEs, etc.), you will degrade the image.

What about the edit master? What do you use for that?

You could use any of the three formats I mentioned before. My personal preference would be the D-1. I like the idea of having an uncompressed master which is also a standardized international format. From this "in-house" master I can go in any direction, make any kind of clone or dub for cut-downs or distribution, and get the best standards conversion currently available.

Wouldn't I cut through all this stuff by simply going back to my negative, recutting the show for these other versions and then doing a new auto-assembly?

That might be messier than you think.

I don't know why you say that. Maybe you're assuming that I'll cut the negative near the "cut-point." Well, I don't have to do that. I can assemble my show flash-to-flash, thereby preserving all the material for future recuts.

I am aware of that, but I see a different problem. First of all, if you're going to cut another version of the show, you would have to figure out a way to reconstruct the work print as well as the negative. You might also be obliged to machine edge-number the two: remember, you lost frames on the first go-around, breaking the continuity of the frame count. This, of course, would preclude any kind of auto-conform operation and would cost you dearly in the on-line.

Subsequent versions of the show would probably suffer the same fate. Concerns about dirt and scratches should be abandoned. You've handled your negative so much by this time that you're fighting a losing battle. The most logical way to get around these problems is to transfer all the material in the first place and put the uncut negative in a vault, in case you ever want to make a release print. Incidentally, the Avid puts out a "matchback" list that is an EDL based on feet and frames. This gives the negative cutter everything he needs to set you up for printing. The only thing I would add to this step is the use of a work tape of the finished show as a means of verifying the cut points, before you put the scissors to the negative.

How do we handle syncing the audio?

To begin with, I would recommend that your sound man use an elec-

tronic "smart slate" or, at the very least, deliver legible head slates in order to facilitate syncing during the transfer. This is an important issue, because it could have significant fiscal implications.

Suppose those conditions can't be met. What if I have a more typical "on-the-run" documentary with tail slates or no slates at all?

In that case we would deal with the audio after the transfer. In my shop we use a digital workstation called an Opus for this task. We put three Nagras on line simultaneously to resolve and load the material into the Opus. Once that's done, the actual syncing process is very fast. Obviously, the difficult part is to find sync points if there are no slates at all. Incidentally, if you use a DAT recorder, which is gaining in popularity, you will have to convert your material from 30 frames per second (DAT speed) to 29.97 (film transfer speed). This task is also performed by the Opus.

How about the big issue, the edit itself? All the technology in the world isn't going to replace my editor, who's not looking forward to becoming a computer geek. Furthermore, he feels that there are fiscal problems for him; he owns his own Steenbeck.

This issue often has emotional as well as fiscal implications for the editor. Let me tell you about one very popular editor who has used the Avid on several projects and actually prefers it to cutting film. Without making any bones about it, this man refuses to reduce his overall fee even though he readily admits that he can cut a show much faster on the Avid than on a Steenbeck. Because of the Avid's ability to store endless permutations of an edit and the speed with which ideas can be implemented, he feels that he's able to exercise more creativity. He's convinced that this process allows him to create far more interesting shows.

What I found particularly interesting was a comment he made about control. "In video, too many technicians get their hands into my stew," he said. The Avid, on the other hand, allows him to create a final edit list that is cast in stone and gives him complete control of the audio construction as well, just as in film.

As for his Steenbeck, the last I heard was that he was trying to rent it without much success.

judy irola on film:

"The art of cinematography is visceral. It's something you feel in the moment and you know it's the right thing to do. Partly, it's innate, a talent you're born with. Partly, it's experience. It's not only what you've done as a cinematographer, it's what you've seen and what you remember as you've experienced life. All of this comes into play at the moment of creation. Once you get the basics out of the way, moving the camera, experimenting with angles and light, then what's left is being sensitive to the material and getting it on film. I like an intimate camera that draws the audience into the story and rivets their attention to the screen. The most stimulating and challenging part of the job is meeting a new director—making your vision and the director's vision into one. You talk about the script in a graphic sense, but you have to see the locations and actors to get the final concept down. That's what inspires you."

Judy Irola

Judy Irola earned the Award for Cinematography at the Sundance Film Festival in 1993 for "An Ambush of Ghosts." Her first feature, "Northern Lights," won the Camera D'Or at the Cannes Film Festival in 1979. In between these films her credits include "Antigone: Rites for the Dead," "The Dead End Kids," "Working Girls," "In the King James Version," and "Seguin." She has an extensive background in documentaries. Her current films are "Lost Eden" and "What Elephant?"



What about the business of disk space for a project with this much footage?

It's really a minor issue. Let's assume that you start with a reasonable amount of disk storage, say seven to eight hours. Even if you're dealing with a 20 or 30:1 ratio, you should be able to reduce the bulk to a manageable size.

Here's a typical scenario: First you evaluate and log all your material. With the help of a media-logger (a special computer program), your decisions are stored in an ordinary computer, which ultimately will talk to the Avid and sort your selected material into bins. Whatever scenes you choose will be digitized and stored on a hard disk. All of the material so treated is instantly accessible and can be edited in any order about as fast as you can dream up the ideas. Should you ever need to access material that wasn't chosen in the first step, you would simply pull that tape and add these scenes to the disk. Obviously, as you are making editorial decisions, you can always relinquish unused material to make room on the disk.

There's also a neat trick that allows you to store one or two frames of all the scenes you're "rejecting," serving as a quick reminder of what else might be available.

Another way to deal with the storage issue is to break the show into two or three segments, clear the disks of source material after you've finished the rough-cut, and go on to another segment. Remember, you can always transfer a scene from tape should you need to.

What about the audio construction? Can you really build tracks as precisely as we do it in film?

Absolutely. You can lay up to 24 tracks; however, only two (or under certain conditions, four) can be played back simultaneously. The Opus, in turn, can handle up to 99 tracks discreetly.

Should you and your editor be so inclined, I would certainly recommend a collaboration with the audio department. This would include track design as well as lay-up. Much like the Avid, the Opus is a random-access device. Any audio element can be laid up, looped or enhanced almost instantaneously. Additionally, we maintain a library of over 40,000 sound effects that are all computer-accessible.

Of course, to make full use of

these options requires a high degree of trust in the mixer.

Let's talk about PAL. My limited experience has been messy to say the least. I had one show converted to PAL and was shocked to see blurring whenever anything moved in the picture. The European distributor demanded that the conversion be redone in Holland, and asked that I provide a D-1 for that purpose. I went along with this, only to hear more complaints about the D-1 having "NTSC footprints." What are they talking about?

This isn't an uncommon problem. To begin with, PAL is a higher-quality standard because it has 625 lines of resolution compared to our 525 lines. In other words, you are starting with a weak link. When you add the loss in quality as a result of the standards conversion, you've compounded the problem further. As for the NTSC footprint, what he was talking about relates to the way the show was edited or, more precisely, the way the signals were processed.

If your master was "encoded" anywhere along the line it will leave certain "artifacts." These degradations are particularly undesirable when you get to the higher European standards. The best way around this is to avoid the use of any "composite" devices and stay strictly in the "component" domain. In other words, no one-inch or D-2.

When your standards convert to PAL, it's best to use a D-1 recording as the source and make sure that the conversion device is state of the art. Conversion is no place to try and save money.

Isn't it possible to do some kind of separate transfer and then an edit in PAL?

It is possible but not necessarily elegant. We can easily make a double transfer (NTSC and PAL). We can also change over the edit suite from one standard to the other with relative ease. However, we don't as yet have an elegant solution to the differing frame rates: 24 fps in the U.S. vs. 25 in Europe.

Without going into all the complexities relating to this issue, the bottom line is that a converted EDL is subject to minute variances; as a result, the cut points must be verified against the original off-line. This will undoubtedly add a few hours of edit time to your on-line.

However, if you do take this

path, you'll have a perfect NTSC as well as a perfect PAL version of your show.

You haven't said anything about the cost of all this.

It's difficult to make any kind of precise comparison because we're comparing apples with oranges. Generally speaking, the money you save by avoiding the workprint, the audio transfer to sprockets and the negative cut will probably offset the cost of the additional film transfers and the Avid rental. Everything else remains essentially the same.

Money aside, I think that this approach to film production is far more sensible and far more elegant. You eliminate the dirt problem when you remove negative handling from the process. The single run on the telecine is obviously a lot safer and cleaner than repeated runs.

You've also solved many of the archival problems by going directly to video, which can easily be cloned repeatedly without degradation or harm to your original material. I've acquired an attitude about certain video processes which degrade the image. Some of these degradations might be incrementally small, but their cumulative effect is considerable and undermines all the hard work that goes into these projects.

It's probably worth mentioning that I also have an attitude about the human factor, particularly as it relates to casting people for these specialized tasks.

As in the world of film, creative control should remain in the hands of the editor, along with the producer/director. Highly technical procedures should be handled by people who are indeed perfectionist in their tendencies. A colorist should have a good eye for the color of a scene, but also should be able to contribute to the general look of an entire show.

In other words, the process should be executed by people who are not only technically proficient, but who take pride in their work and have an appreciation for an ensemble effort. That's the way we did it in film and it's how we'll achieve better video. 

The author is an owner/operator of Roland House, a postproduction company in Arlington, Virginia. Telephone: (703) 525-7000.

John Hancock Ad Visits Peaceable Kingdom

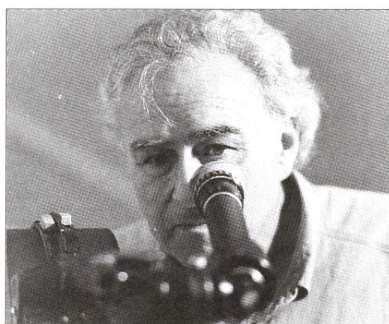
Digital post techniques allow director-cinematographer Henry Sandbank to play Dr. Doolittle to a group of jungle animals.

by Bob Fisher

One and two at a time, a procession of jungle creatures walk sedately into an idyllic garden setting and take their places as if posing for a picture. A lamb turns toward a big cat, and for a brief second it appears that the greeting is acknowledged with a curt nod. Some animals brush against others while strolling into the picture. They are assembled for about ten seconds until a voice-over declares that "at John Hancock it is our hope that someday — for all people and all time — this is what real life will be."

This is the world of the *Peaceable Kingdom*, based on a series of unforgettable Edward Hicks paintings that present a Quaker's view of a world where tranquility is the natural state of being. Hicks' vision lives on in the 60-second commercial sponsored by John Hancock Financial Services for the Winter Olympics. Produced by Sandbank, Kamen & Partners and with digital visual effects by R/Greenberg Associates, New York, the spot assembles in one setting a lion, jaguar, goat, rabbit, wolf, cougar, bear, zebra, hawk, roosters, serval cubs, and a gaggle of geese.

The spot's fairy-tale aura is in stark contrast to the many other ads in the Winter Games network television programming — a plethora of fast-paced and trendy commercials, many of which have winter sports settings and feature athletes' product testimonials. Brilliantly hued, purposefully slow-moving and thought-provoking, the *Peaceable Kingdom* spot reflects the most idealistic spirit of the Games; as the voice-over says,



"Once every few years, we all get a glimpse of what life on this Earth could be."

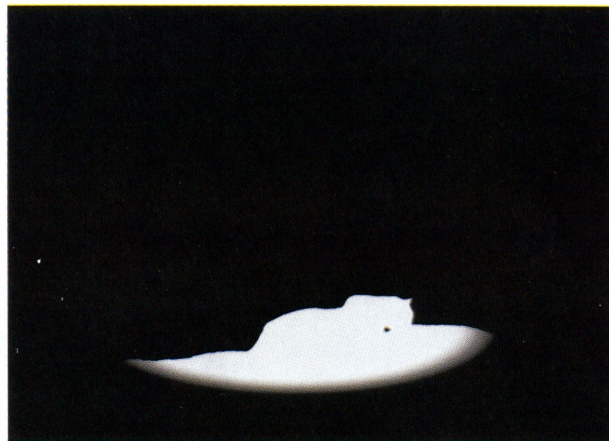
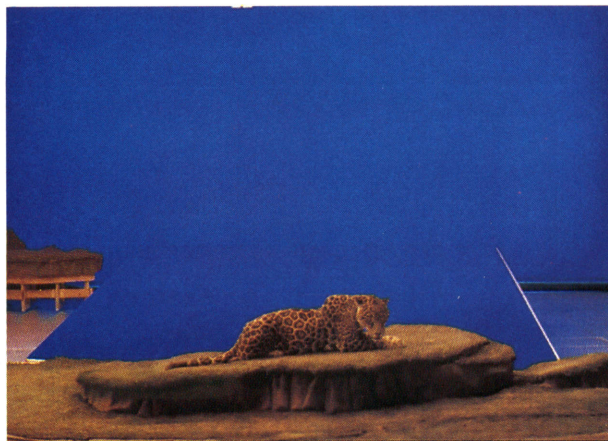
Director/cinematographer Henry Sandbank started his career as a still photographer with a reputation for creating

unique magazine illustrations. He was known as a stylistic maverick who never repeated his own ideas or copied others. Sandbank started shooting commercials some 20 years ago when the genre was more experimental, and has since filmed 1,200 to 1,500 of them, mainly playing the role of director-cameraman.

Sandbank approached the 60-second *Peaceable Kingdom* spot as a series of 1,440 individual images, with Hicks' paintings as the models for the style and aesthetics of the spot. Production took place at the company's studio in Hawthorne, New York on a 60' X 80' sound

Above: Visual effects by R.Greenberg Associates helped to create this idyllic scenario. **Left:** Sandbank approaches the eyepiece.

A jaguar is shot against blue screen (upper left) and then digitally composited into the wildlife environment, with added highlights.



stage. Much of the back wall was covered with a 20' X 40' translucent bluescreen, while a large part of the floor was laid over with a reflective Mylar material (consisting of sheets of Mylar stretched on wooden frames that are held firmly in place with Mylar adhesive tape) that blends with the bluescreen background. This step keeps the screen, backlit with fluorescent lights, further away from the foreground and ensures that lights used to illuminate the animals in the foreground don't contaminate the bluescreen.

On set, Sandbank presides over the staging of the production like a restive general preparing for battle. He demands perfection, but his crew handles his prodding with good humor. The logistics of the four-day shoot are complex: there's no margin for error in a project like this, for which tolerances in layering the complex composite images are measured in thou-

sandths of an inch. The slightest flaw in the bluescreen background or in registration could shatter the illusion by giving the audience a clue that the gathering of diverse animals is visual sleight of hand.

Sandbank has already gone through a day of pre-lighting and has experimented with different grids for diffusing the light to create the right ambience. In filming the animals he uses very soft, naturalistic light with a purity you would expect in a world without haze or smog. The light's intensity is sufficient for him to pull a deep stop, for the images must be pristine: Sandbank wants to capture the texture of each animal's coat, right down to the individual hairs, as well as the diversity in tones and richness of colors. However, he must also take care not to make the light too bright or hot for the animals.

The animals and their trainers come from two agencies,

Cougar Hill Ranch in Palmdale, California, and Dawn Animal Agency in New York. Sandbank is surprisingly adept at directing them, and talks to them in a cajoling tone, imploring Pancho the jaguar, Foghorn the rooster and the other jungle thespians to give their best performances.

The animals' trainers serve as liaisons. "The animals are like people," explains one trainer. "They have preferences. They work better with some people than others, depending on the bonding and the trust, and the feelings formed between the animal and trainer."

Sandbank is shooting with 200T Eastman EXR 5293 film, which is fast enough to give him a solid stop needed for depth of field, along with a grain-free image and colors rich in saturation. Sandbank also appreciates the way foreground images separate cleanly from the bluescreen backgrounds, and the smoothness of the telecine transfer.

Every aspect of the shoot is precisely planned. Sandbank and R/Greenberg visual effects producer Nancy Bernstein have a final composite in mind which calls for each animal to walk in a specific way to a pre-selected spot: they photograph the animals in the foreground first, and then work their way back. During the shoot, a video tap on the camera captures a videotape record to create an almost real-time proof of the composite. The team also uses a thermal printer to pull a copy of a selected frame from each take, and an Exacto knife to cut out the animal and add the image to a composite storyboard on an acetate base.

A Mitchell Fries 35R3 camera provided by R/Greenberg requires exacting registration, since it will be used for close-ups that will be elements of the composite. Sandbank also employs the Mitchell Fries camera to shoot some scenes at 48 or 72 frames a second. For the rest of the shoot he uses his own Arriflex BL camera.

The camera is locked in place to simplify registration of the film components. Marks on the floor register the correct positioning for the animals, who are more or less hitting them like professional actors. It is precision filming indeed, yet Sandbank says compositing bluescreen images in a digital environment gives him tremendous creative freedom. "If we position a jaguar or cougar here with a bluescreen behind it, and then film there with a lamb and blue screen in the background, the composite makes it look like they are touching," he explains. "It would be very difficult to make them touch in the real world."

Sandbank uses his years of experience and intuition to decide where to position the animals in relation to the bluescreen in each element. He decides to occasionally vary the frame rate, stretching an image of a big cat striding into a scene. In one setting, he brings a lion a little closer to the lens to make him seem big-

ger. In another, he decides that an animal needs larger horns and has the prop department make a pair of tips to fit neatly on the animal's own.

"I shoot until I feel I have what I need," Sandbank says. "Sometimes it doesn't feel right, so you might make a drastic change and redesign a sequence. It's like making a mosaic. The pieces have to fit."

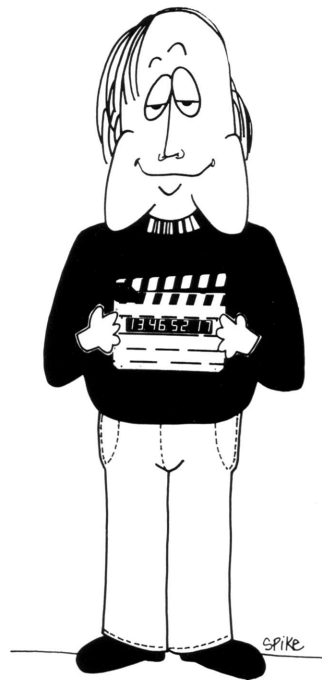
When the spot was being planned, the team considered using a lot of action and movement. Sandbank demurred in favor of a static camera and a sedate assembly. "If all of those animals were too active, the audience wouldn't know where to look," he explains. "I wanted it to feel comfortable and tranquil. What really matters is the footage used in the final composite, and that's only on the screen for about ten seconds."

Nancy Bernstein, who produced the digital visual effects, has been with R/Greenberg for about eight years, serving as head of production for the past six. She studied still photography at Tulane University and got her first job with R/Greenberg as a receptionist. After leaving for several years to work in graphics, including title design and animation, she returned to the company as a producer.

"When Henry brought us into this project, it wasn't storyboarded yet," she says. "He sent us a color photo copy of a 'Peaceable Kingdom' painting, and said they wanted to bring all of these animals into a unified environment. He wanted a painterly feeling."

The visual effects team worked with Sandbank in plotting a frame-by-frame plan, including the exact location of each animal in every scene, and how it would all be composited layer by layer. With 40 to 50 layers in the final composite, it's not even close to being the most complex composite they have created with Sandbank; what makes it different was how the team handled the unpredictability of the ani-

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mals' movements and reactions.

"We spoke about how the various animals should interact on the composite scenes — whether they should be standing or sitting, and what they might sit on," she says. "Henry discussed how different frame rates could be used to make an animal seem more graceful, or to amplify its presence. Once you consider that, you have to figure out how shooting different elements of a composite scene in different ways affects how you are going to put the parts together."

The film was processed at DuArt Labs, and the negative was transferred to D-1 at The Tape House. Bernstein says a key issue was the ability to make perfect mattes. "Henry wanted to see the hairs on animals' bodies, and discern subtle shades of difference in tonality," she says. And of course, for the audience to accept that the animals in *The Peaceable Kingdom* are really co-habiting, "there couldn't be a hint of matte lines. All of the pieces have to look like they were one image. It had to be believable."

An offline video edit gave Sandbank and R/Greenberg visual effects supervisor Ken Eyring an opportunity to preview the basic choreography of the composited scenes. The actual composite was created at R/Greenberg's new D-1 digital video suite, the second of its kind at the company. Bernstein reports that the digital technology paid definite dividends on the project.

"There was a fairly significant amount of secondary color correction and image enhancement [involved]," Bernstein says. "You can go into each layer, if necessary. You can enhance colors, highlights and shadows. The best part was having Henry [Sandbank] in a digital suite when we did the final composite. I think you need a cinematographer's eye. He was tweaking colors, subtracting and adding contrast, and creating an overall visual balance."

Bernstein says that the true power of the technology is

exploited by having a good digital editor and a talented cinematographer interacting in a digital suite. "The postproduction process is more collaborative and creative than ever before," she says. "There was a lot of interactivity between Henry and the visual effects editor, Paul Agid. What this means is that the director-cinematographer can now see projects through from start to finish."

"You can learn a lot just by walking around and talking to people at this studio," says Agid, who came to R/Greenberg as a digital paint systems artist and progressed to visual effects editor. "There are people here doing everything from motion-control photography to computer graphics to nonlinear editing. The Bauhaus philosophy really works."

Agid was brought onto the project when it reached postproduction. "I was really impressed with how Henry photographed the animals," he says. "Sometimes on a complex shoot like this, the different elements need a lot of treatment in order to integrate them so that the colors, contrast and textures match. This spot was technically well executed, and it was still filmed in a painterly manner. That's a rare combination of talent and craftsmanship."

Sandbank's lighting lent the animals a surreal quality, Agid says, which gave him a head start in digital post. His tools included an Abekas A-64 workstation, a Grass Valley Group Kaleidoscope and Ultimatte System 5 compositing tools for Chromakey. Digital fine-tuning included synchronizing the interactions of different animals. When he was working with the footage of the servals, for example, Agid noticed a sequence where they turn, look in a different direction and then start walking away from the camera, followed by a sequence of the geese walking onto the set. Thanks to some subtle tweaking, he made it appear that the servals were walking up to the geese.

"We wanted the audience to believe the animals were aware of one another," he explains. "We created rough-cut composites, discussed the images and cleaned it up with digital matting. After that, we had a good time painting."

With Sandbank in the suite, Agid treated the highlights and shadows to augment the painterly look. "Sometimes we bloomed the highlights and put some colors into them," he explains. "We darkened or lightened shadow areas. We did some subtle things, like putting a ripple in the lake in the painted matte background."

In addition to the animals, the final composite consists of the painted matte background, the trees in mid-ground and three different layers of foreground.

Agid also appreciates the D-1 format for its ability to create sophisticated multi-layer composites without degradation of image quality with each new generation. "We can perform an infinite number of passes, and it is transparent in terms of image quality," he says. "This is a powerful tool for cinematographers when they become comfortable with the technology."

Agid believes that all of the tactics applied to creating visual effects for *Peaceable Kingdom* now translate to feature filmmaking. "We work in a resolution-independent studio," he says. "When you work on a project like this, you should be able to input and output at any resolution. The means for doing this exist today."

The moral of the story, Bernstein says, is that cinematographers should embrace digital postproduction technology with open arms. "It's a tool that can be used in a collaborative way. It's not going to ruin your beautiful images; it will make them look more beautiful. Henry pushed the possibilities of this spot to the outer limits, but I don't think the last chapter has been written. This is a 60-second taste of the future."

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Byzantine Business Plot Begets *The Hudsucker Proxy*

Following up on *Barton Fink*, Roger Deakins, BSC once again brings the bizarre world of the Coen Brothers to the big screen.

by Brooke Comer

Roger Deakins works with a different director on almost every film. "Maybe that's because no one will have me back," he jokes.

On the other hand, maybe it's because he's in constant demand. He did work twice with Michael Radford, whose *Another Time, Another Place* in 1982 gave Deakins his first feature job; their collaboration continued on 1984 and *White Mis-*

chief. Since then, Deakins has worked with more than a dozen directors on projects including Bob Rafelson's *Mountains of the Moon*, Joel and Ethan Coen's *Barton Fink*, David Mamet's *Homicide*, Michael Apted's *Thunderheart*, John Sayles' *Passion Fish* and Agnieszka Holland's *The Secret Garden*.

Some cinematographers worry about being stereotyped as

genre shooters, but this is clearly not Deakins' dilemma. Even when he does repeat business, he never duplicates the look. His second Coen brothers' job on *Hudsucker Proxy* is not, he points out, another *Barton Fink*. *Fink*

Produced by Ethan Coen
Directed by Joel Coen
Director of photography,
Roger Deakins, BSC

plumbed the dark depths of the soul, using distinctive camera angles and lighting techniques to evoke a moral dinginess. "*Hudsucker Proxy* isn't quite as dark," says Deakins, "but it's set in the same sort of strange world."

That strange world is New York City, circa 1958, where midwesterner Norville Barnes (Tim Robbins) has just arrived fresh from business school. At the

exact moment he begins his ascent up the corporate ladder by taking an entry-level job in the mailroom at Hudsucker Industries, Waring Hudsucker (Charles Durning) makes an abrupt descent, leaping from his 44th-floor window. Hudsucker's death means one thing to

Photos by Jim Bridges, courtesy of Warner Bros.



Sidney J. Mossburger (Paul Newman): the Hudsucker board will lose controlling interest of company stock if the shares go public.

Mossburger plots to install a patsy — Barnes — as president to devalue the stock so that the board can acquire controlling interest for themselves. The plan might work. But ace reporter Amy Archer (Jennifer Jason Leigh) also has a plan: to go undercover and prove her suspicion that Barnes is a fraud. Like previous Coen brothers' heroes, Barnes is a victim of fate rather than a heartless fraud. And he, too, has a plan.

Each time Deakins pairs up with a director he learns a new style of working ("No two directors work quite alike," he says), but he found the Coen brothers' method truly unique. "Joel and Ethan like to storyboard every-

thing," he explains. "They'll start with the first rough sketches of the boards and go through absolutely every scene and angle. By the time you shoot, you've spent weeks in preparation, working out details with the designer and everyone else involved. On the set, you've got a clear idea of what that day's work is going to be." Their passion for detail includes a desire for outside input. "They don't do it all alone," says

the UK's National Film School.

Raised in Devon, England, Deakins had originally pursued art courses and photography at Bath Academy of Art. He'd always been an avid moviegoer, and was particularly fascinated by Italian neo-realism and the films of Stanley Kubrick, Jean-Pierre Melville, Jean-Luc Godard and Sergio Leone. But it was the work of Conrad Hall, ASC in John Huston's *Fat City*



Deakins. "We're all definitely part of a team. That's why *Hudsucker* was an easier film to work on than *Barton Fink*, because [this time] I knew fairly well how they worked, and hopefully what they were after."

Hudsucker involved large sets and extensive rigging, model work and effects at Carolco Studios in Wilmington, North Carolina. "From a technical perspective," says Deakins, "it was a pretty tricky show." He was not daunted, however, having acquired visual versatility as a documentary filmmaker early in his career after graduating from

that really hooked Deakins on cinematography. By then he'd already seen *In Cold Blood*, also shot by Hall, "and I was very impressed with his talent and vision."

Deakins was in his early 20s when he began to pay attention to Hall's innovative style.

"Most English films back then were shot with very traditional, direct light," he recalls. "It gave everything a stagey look, since there was key light, backlight and fill light. But Conrad broke the mold and *Fat City* really stood out. That film and others really turned me on to the idea of shooting movies instead of stills. I was excited by Hall's work because he shot more in the Italian neo-real-

Opposite: Sidney J. Mossburger (Paul Newman) addresses the Hudsucker Industries board. The New York skyline (circa 1958) was created with the help of a computer-generated TransLight. This page, clockwise from left: *Intrepid* newspaper-woman Amy Archer (Jennifer Jason Leigh) attempts to sort out the machinations behind the Hudsucker shakeup; Mossburger in the midst of his smoke-and-mirrors scheme; cinematographer Roger Deakins at the helm.

Top: Potential patsy Norville Barnes (Tim Robbins) gets an earful from the ace reporter.

Below: The Coen brothers' stylized, often surreal visual style provided Deakins with a spectacular canvas.



ist way than most traditional cinematographers. His work was more in the vein of Raoul Coutard, who shot many of Godard's films."

Fortunately for Deakins, his inspiration came just as the National Film School was opening its doors under the auspices of Colin Young, who shared with the students his experience in the English documentary tradition. While still in film school, Deakins mapped out his career path: "Make documentaries first, then shoot features." He had no trouble carrying out his plan.

Deakins found he couldn't get a job as an assistant, but he could get a job as a cameraman. He was promoted before he even began, shooting documentaries with only a soundman. Under the pretense of making a tourist film, he traveled to Rhodesia to cover the war there for the African National Congress. "We were thrown out when they figured out what we were doing," Deakins admits. He spent a year sailing around the world to shoot the Round the World Yacht Race and another three months filming the war in Eritrea, both for independent television in England.

Deakins shot his documentaries with an Eclair NPR and an Aaton, but he likes to shoot features with an Arriflex. *Hudsucker Proxy* required two dif-



ferent Arri models to fulfill the story's diverse artistic needs. Deakins started out with the new Arri 535 to accommodate the film's in-camera effects. The 535's built-in computer system enabled him to correct the exposure by changing the shutter aperture instead of the lens aperture. "The computer adjusts the shutter in sync with the film speed to obtain an even exposure," he explains. When the scenes requiring effects were completed, Deakins finished the film on a BL-4, his long-time camera of choice.

Is there such a thing as a "long-lens film" in the Coen Brothers' repertoire? "Their early work tended to be shot with very

wide lenses," observes Deakins, noting that *Hudsucker* didn't employ many long-lens shots either. Deakins prefers slightly longer lenses, and the battle over lens length became an ongoing joke between the cinematographer and the Coens. "I'd put on the 28 and they'd say 'Shouldn't this be an 18?' We'd usually end up somewhere in the middle."

Deakins used a focal range that stretched from 10mm to 85mm. "I tend to like working with primes because it makes you think a bit more about where you want to put the camera," he explains. "The fact that I don't like to use zooms means there are

some directors I really can't work with. I'll only use zooms for a specific effect. I'd much rather work with primes, which was great on *Hudsucker*, because the Coens really like primes as well. They're very precise in planning each shot."

The scene of Waring Hudsucker falling 44 floors from his boardroom window to the sidewalk is basically a computerized composite of blue-screen work, in which shots of the character are combined with scenes from a motion-control camera going down the side of a model building. "The model unit had to make sure the camera's speed matched [that of] the falling

Director of Photography Ric Waite ASC talks about using anamorphic equipment from Clairmont Camera to shoot *On Deadly Ground*

Ric Waite's credits as Director of Photography include Cobra, Last Light, Marked For Death, Adventures in Babysitting, Uncommon Valor, 48 Hours and The Longriders. He has worked as D.P. on about 40 features and cable movies.



started out with one of those. But we soon got another from Clairmont; and we shot most of the picture with them.”

“As usual, I got personal attention at Clairmont,” says Mr. Waite. “Denny went out of his way to accommodate me. I have the highest respect for what he’s done for all of us.”

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“We rented the Clairmont hard anamorphics (because they’re smaller than the Arriscopes) to use with the Steadicam and for hand-holding. But they were so good I ended up using them several times on the stage, on a dolly,” says Ric Waite.

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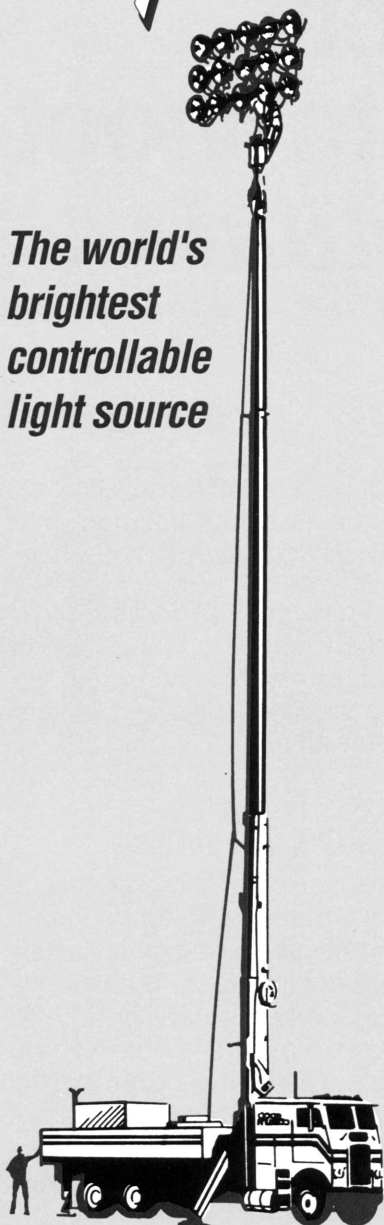
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body," says Deakins. "We had to imply height, speed and scale, and found that we got that look with about a 10mm lens."

The sets were the largest and most complex the cinematographer had worked on since shooting 1984. A computer-generated TransLight was made to create a stylized view of Manhattan outside the set window, and the light from the city had to match the light inside. The real challenge was light placement.

At the Wilmington, North Carolina studio, Deakins and his regular gaffer, Bill O'Leary, installed a grid from which to hang lights, as the large set left little space elsewhere. The director of photography explains: "The model crew had built two sets of models down there. One set was 14 or 15 feet high, to facilitate fly-through shots amid falling snow. The other model was 40 or 50 feet tall and laid flat on the floor so that the motion-control camera could track along the side, where Hudsucker falls to his death. The other side of the street was suspended above the taller model, leaving a narrow channel so that the camera could track down between it. It would have been physically impossible to shoot the bigger model when it was standing upright."

The operation required a crowded stage. "Joel and Ethan and I watched Mike McAlister, the special effects supervisor, shooting the models on a stage packed with equipment," Deakins recalls. "He'd be doing passes of shots, covered with the white plastic they used for falling snow; after a few takes, the whole stage was filled with snow."

Hudsucker required a lot of camera moves, not counting special moves necessitated by the model work. Paul Newman's character is introduced in a shot that starts out looking up at the building's top (the top was actually a model that was composited into the scene later). The camera tilts down to find the window through which Hudsucker has just fallen, then cranes up toward

the hole and tracks into Paul Newman, who turns and walks into a boardroom in which some 40 people are sitting around a table.

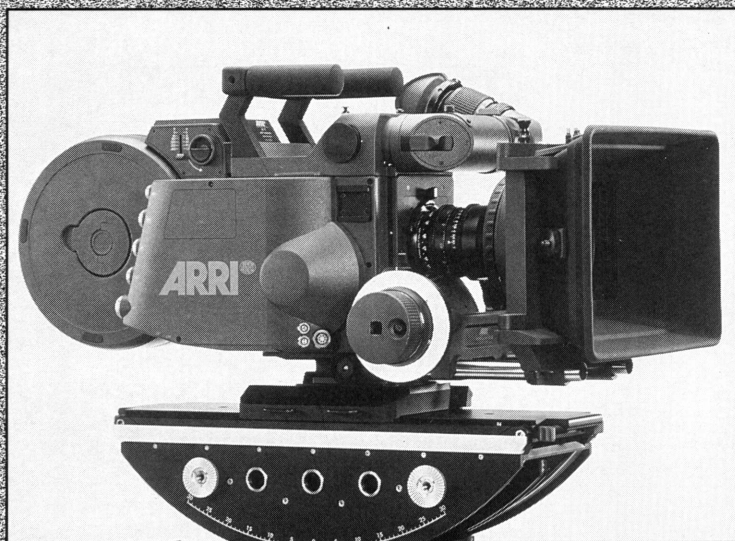
To accomplish the shot, the set was built 14 feet off the ground and the camera placed on a 32-foot Giraffe crane. The camera started on the stage floor. Since the camera had to end up inside the window, Deakins' crew built "a really tricky pipe rig, so that the crane dolly wheels are on the track but the arm of the crane is going down between the rails. When the camera's going through the window, the arm of the crane is horizontal, so it can get through. Obviously the hole isn't that big, and if the arm was at an angle, it couldn't go through."

Up and over part of the stage ceiling, a huge sky backing was built behind the camera and lit as if it was a reflection of the sky in the window glass. "Obviously, when we went through the window anything in the glass was reflected," Deakins says, "so we built a huge cove, which wouldn't be complicated on an ordinary stage. But because of our size restrictions, it was difficult."

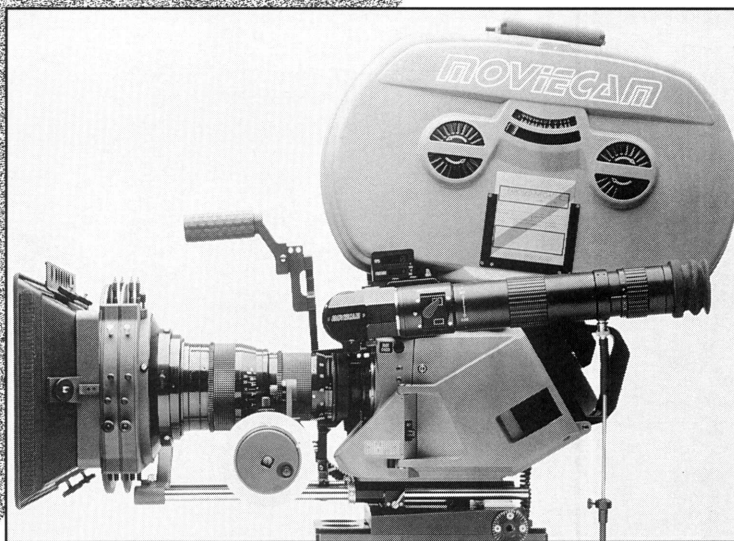
Winter in Wilmington was another difficulty. "We'd been filming up in Chicago, which we thought would be the coldest part of the shoot, but we happened to be in Wilmington at a time when a storm went up the East Coast. Most of the streets we were shooting on in the backlot disappeared during strong winds and rain." At the height of the storm, the power lines went down and production came to a halt for a few days.

When the street set was rebuilt and night shoots resumed, the crew found the North Carolina nights colder than anything they'd experienced during the snowstorms in Chicago. "The snow in Chicago was wonderful," says Deakins, "especially for (effects supervisor) Peter Chesney. It was extremely gratifying to him when no one could

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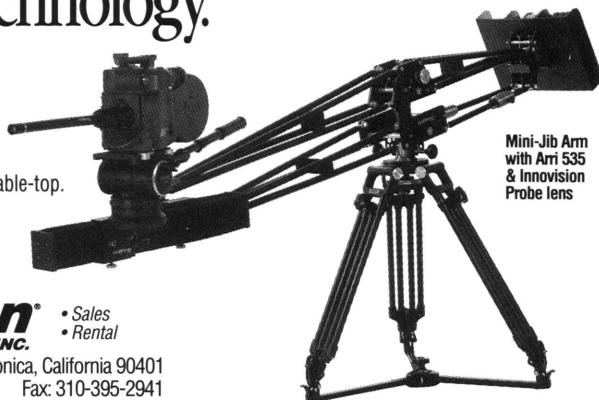
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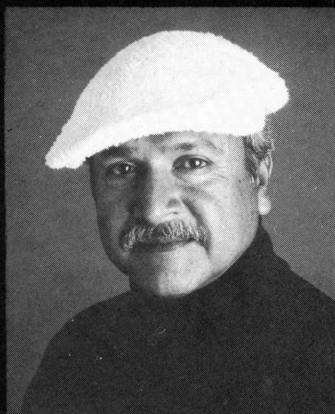
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John A. Alonzo, ASC, earned an Oscar nomination for "Chinatown" and some of his many motion picture credits include: "Housesitter", "Internal Affairs", "Steel Magnolias", "Navy Seals", "The Guardian", "Scarface", "Norma Rae", "The Bad News Bears", "Black Sunday" and "Farewell My Lovely".

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tell the difference between the real snow and the fake snow."

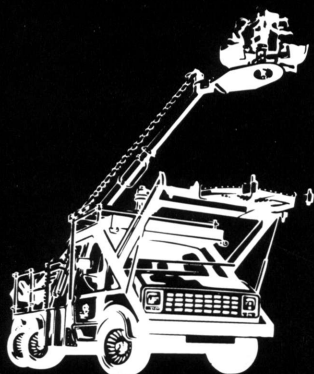
Despite the weather and the challenge of creating a towering New York office building in a North Carolina studio, Deakins insists that the *Hudsucker Proxy* production proceeded without a hitch. He credits the smoothness of the project to the Coen brothers' preparation time. "I like to work with a directors who are prepared," says Deakins. "Too many people create as they go along. If you work out the look and feel of the film before you get to the set, you're ahead of the game."

From his early days as a documentarian, Deakins still remembers the words of a famous fellow cinematographer. "He told me that he always threw away the first week's filming," Deakins laughs. "You can do that when you're out in Africa shooting some anthropological piece about a tribe, because nobody'd miss it. It would take you that long to know the people before the footage was anything more than voyeuristic. But you can't do that on a feature, even though it takes a while for the crew to get in sync with the actors and to get the feel of the piece."

But Deakins maintains that preparation can compensate for this awkward period of synchronization. "That's why the Coen Brothers always score," says Deakins. "They're prepared." The film's production value is visible onscreen "because that's where the money is. When you're not prepared you spend more time shooting, which means the money goes someplace else."

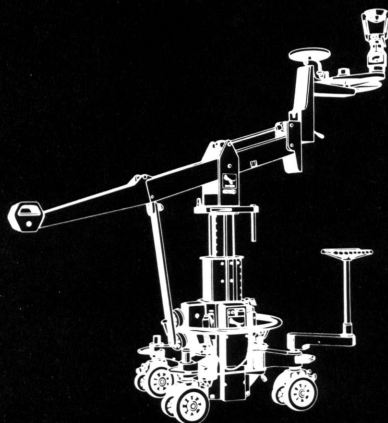
Deakins jumped straight from *Hudsucker Proxy* to director Frank Donabont's *Rita Hayworth and the ShawShank Redemption*, before signing onto Robert Benton's *Nobody's Fool*. For the near future at least, the cinematographer seems blissfully happy staying behind the lens of his Arriflex. He concludes, "I just know I love the job I'm doing." ☘

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Artfully Rendering *An Ambush of Ghosts*

Cinematographer Judy Irola lends,
award-winning approach to familial drama.

by Bob Fisher

Every cinematographer has a strategy for first meetings with directors. Judy Irola, an ardent collector of still photography and art books, has often assembled a book of images, mainly pictures torn from magazines and newspapers, for the occasion.

"At that point [in the process] it isn't about words," she says. "It's the beginning of a visual relationship to make the story come to life onscreen. It's much easier to communicate if you show the director the lighting and colors you envision. Here is where your creativity comes to life. [You] both have a passion — and usually a history — in this visual medium. The challenge is to come to an understanding and support each other during the difficult process ahead."

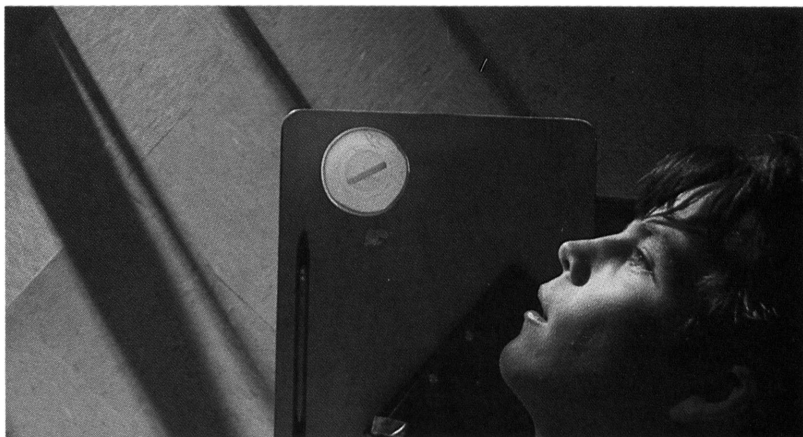
Irola was born into a family of Basque shepherders who resided in California's central San Joaquin Valley. Later in life, she spent two years with the Peace Corps in Africa, an experience which considerably broadened her view of the world. Upon returning in 1968, Irola went to work as a secretary at KQED-TV in San Francisco. She spent her off-time at the station learning how to use cameras; soon, she was shooting documentaries for national PBS. In 1972, she, along with six men, organized Cine Manifest, a film collective dedicated to making feature films that reflected different elements in American society. Out of this grew the project *Northern Lights*.

Irola's first narrative film, *Northern Lights*, won the Camera d'Or Award at the 1979 Cannes International Film Festival (the award is given to the

best film entered by a first-time director). John Hanson and Rob Nilsson, both members of Cine Manifest, shared writing, directing, producing and editing credits.

Northern Lights was shot in North Dakota in stark black & white images. People still ask Irola about the remarkable skies and landscapes. "There is a myriad of filters for black & white photography," she says, "but be-

joined IATSE Local 644 and found work as a stringer for *60 Minutes*, *20/20*, *Real People*, *Odyssey*, *Nova* and various European channels including BBC Channel 4 and Granada in England. Irola also filmed eight segments of *Schiller's Reel* for *Saturday Night Live*, including the unforgettable "La Dolce Gilda" skit with Gilda Radner. At the same time she continued to shoot documenta-



cause everything was already literally black & white — the sky was heavily overcast all day, [there was] snow on the prairie as far as you could see, and our cast was in tea-stained white or dark brown and black clothes — I chose to use the heavy yellow filters. I did tests and was thrilled with their ability to give me wonderful contrast while keeping beautiful flesh tones as people's backgrounds changed between sky and snow — often in the same shot."

Irola moved to New York in 1977 without a job, or even solid contacts. She relentlessly carried her reel to auditions and cold calls (there were no camera agents at that time). She

ries for the independents, including *The Willmar Eight* with Lee Grant and *Fidel at 60* with Saul Landau.

Her subsequent fiction film credits include about a dozen independent features, including *An Ambush of Ghosts* with Everett Lewis, *Antigone: Rites for the Dead* with Amy Greenfield, *The Dead End Kids* with JoAnne Akalaitis, *Working Girls* with Lizzie Borden, *In the King James Version* with Robert Gardner, and *Seguin* with Jesus Trevino.

Irola continues to travel to shoot documentaries. So far, she has worked in Brazil, Mexico, the former Soviet Union, Mozambique, Cuba, Granada and most of Europe and the U.S.



Opposite: Stephen Dorff, portraying the troubled son, arrives at school. After a long dolly move down the hall, a boom up was combined with a dutch tilt to convey his disorientation. Single-source lighting (2500 HMI) from the left was used to create long shadows and eyelight. This page: This interior was achieved via a mixture of tungsten practicals, daylight and 4K HMIs outside the windows at right. Irola also employed a KinoFlo for fill and an 81EF filter.

She has also completed a 10-part series for NBC, *Lifestories*, as well as several Movies of the Week for ABC and CBS. She has done four music videos for John Mellencamp and continues work on an ongoing documentary with him. When she isn't shooting, Irola teaches USC film school students.

An Ambush of Ghosts won the 1993 prize for excellence in narrative cinematography at the Sundance Film Festival. Irola was summoned to the project like a firefighter rushing to quell a four-alarm blaze. Just one week before the film was scheduled to start shooting, director Everett Lewis was still searching for a simpatico cinematographer who could share and execute his vision.

All of the other elements were in place. The actors had been cast, locations had been selected and a camera package had been ordered from Clairmont. The decision was made to compose the film with spherical lenses in the 1.85:1 aspect ratio. Lewis was like a jockey standing alone at the starting gate.

"The producer heard about me and my work at a din-

ner party," Irola says. "It was a Saturday, and he tracked me down that night. He told me about the picture, and said Everett Lewis wanted a painterly approach to lighting. He mentioned some of the classic painters from the Renaissance."

Irola met Lewis the next day. "I had never even seen anything he had directed, but I knew within five minutes that I wanted to shoot his film. I liked his vision and sense of humor. He's an ex-architect in his mid-30s, with a master of fine arts degree from USC. He only had a few credits, but he understood both the process and the art of filmmaking."

Lewis showed Irola books with prints of paintings by Edward Hopper and Michelangelo Da Caravaggio. She, in turn, showed him examples of paintings by Vermeer and other classic artists. The common denominator was single-source light which looked and felt natural.

"He showed me a Hopper painting of a family seated around a dinner table with a strong shaft of sunlight coming through a window," she recalls, "and said that was the look he wanted. We lit a lot through windows. It's easy to shine a 12K through a window, but you also have to know where and how to

use fill, and to understand what different film stocks can do to keep the black tones honest."

The film's story happens in contemporary times, and studies the disintegration of a dysfunctional family haunted by the memory of a horrible accident: the mother (Genevieve Bujold) killed one of her sons when her car ran over him 12 years earlier. With the passage of time, she, her husband (Bruce Davison) and a remaining son (Stephen Dorff) sink into a morass of madness.

The main location was the interior of an old Victorian house located near USC, with supplementary scenes in the backyard and surrounding neighborhood. "It's as if the film is contained inside the frame of a painting," Irola says. "We built a shed in the backyard, but the action that takes place inside was actually shot on a stage at Raleigh Studios. That was our only set. There are some key scenes in the shed involving two teenagers. One is a boy from the local high school who is in hiding after accidentally killing someone in a fight. The son finds him, and they form a kindred soul friendship."

Irola had only six days of preparation time. The pace was hectic verging on frantic. "I walked through every location

Produced by Robert Shulevitz
Directed by Everett Lewis
Director of photography, Judy Irola

Top: *The mother* (Genevieve Bujold) slips further into madness. Lighting was created with 4K HMIs through the Venetian blinds. **Middle:** Another troubled teen (Alan Boyce) takes refuge in a shed. Irola combined single-source lighting (4K HMI) through a small window with a 1/8 CTO. **Bottom:** Dorff and Anne Hache share a pensive moment at a funeral. The sequence was shot on 5245, with no fill or filtration.



with Everett, and he described what he had in mind," she says. Irola also absorbed the script like a sponge and studied videos of old movies, including *The Graduate*, photographed by Robert Surtees, ASC. "The camera never left Dustin Hoffman's face, especially early in the film," Irola points out.

Ambush is an intimate, European-style film with close-ups which bring the audience into eye contact with characters.

Sometimes one or two faces fill the screen. "I didn't invent the idea," says Irola. "Orson Welles did it in *Lady from Shanghai*. A lot of people use that tactic, especially European directors like Fassbinder."

Lewis storyboarded everything and was very explicit about his vision. But he also was open to suggestions. The sense of ensuing madness intensifies as the movie advances sequentially. As she watched each day's dai-

lies, Irola felt that the story could be amplified by making the images increasingly more claustrophobic via artful framing and the use of various lenses. Lewis embraced the concept.

A more specific example of the collaborative process occurs near the end of the film. A boy knocks on a glass door, his female friend answers, and there is a discussion. In the first take, the performers maintained a comfortable space between each other; as a result, there was no dramatic tension. The cinematographer suggested to Lewis that the entire scene should be played out in one shot using a 40mm lens. Irola described how she would shoot the scene with a static camera which unobtrusively inserted the viewers into the scene, drawing them deep into the conversation.

Four weeks earlier, Lewis might have tabled the suggestion. By this point, though, he and Irola were a team, and she had also earned the actors' trust. "Most actors don't like getting into each other's space," Irola explains. "It doesn't feel natural." Pulling off the single shot required additional rehearsals and flawless execution.

"As the girl approaches the glass door," Irola recounts, "we are close in on the reflection of the boy's face in the glass; it fills the screen. We rack-focus slowly to her. She looks at him, and then opens the door. He turns and stares down the barrel of the lens. During all of this, the camera hasn't moved an inch. The actors have to hit their marks, and their faces have to be on the same plane. There are times when the depth of field is only three inches."

For Irola, shooting the arty *Ambush* was reminiscent of working with avant-garde director JoAnne Akalaitis on *The Dead End Kids*. Early on, Lewis told Irola that the characters live in their heads, internalizing their emotions.

Irola gave Lewis the look he wanted by adopting the com-

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Shot on 5296 with an 81EF filter, this scene of Dorff playing the piano combines 4K HMI lighting (from the porch), a KinoFlo and tungsten practicals.



position and camera movement of the 1960s French New Wave. Instead of the usual formula — wide masters followed by two medium over-the-shoulder shots and two close-ups — the camera is always moving. When someone comes through a door, the camera dollies back. As characters enter a room, the camera circles around them. "It's like moving through a painting instead of looking at it passively," Irola says.

Irola wasn't afraid to let the actors fall out of the frame while the dialogue continued or ebbed. Sometimes they catch up with the camera; at other times, the camera moves with one character who goes on to someone or something else.

Consistency was important, because Irola didn't want to visually jar the audience and draw their attention to the camera. "We have people walking through pools of light and shadow," she explains. "Sometimes the light is warm, justified by the practicals. The tight two-shots and close-ups usually occur after they arrive at their destinations. Then it's important for the color, angle and quality of light to match what the audience has seen."

This technique, Irola

notes, is so subtle that it may only affect the audience on a subliminal level. "We wanted to rivet attention on the screen, and create a sense of anticipation," she explains. "If the viewers look away, even for a few seconds, they might miss something important. This style of shooting wouldn't be very interesting with ordinary lighting. It's got to be dimensional to hold their attention. There also has to be a motivation for every light. Everything has to fit: the production design, the words and music, the performances and photography. It's like putting the pieces of a puzzle together."

The camera is almost always on a dolly track, never on a Steadicam or handheld, except during a series of black & white flashbacks. "It just felt like the right kind of movement," says Irola. "The actors had to hit their marks, and the assistant cameraman had to focus."

Irola also took chances with her framing. One unusual scene shows the son arriving at school. As he is walking up the stairs to his classroom, the camera looks down upon him. He walks toward the lens until his face almost fills the frame, at which point the camera skews at a "Dutch" 45-degree angle to in-

dicate that he is emotionally off-center.

"That scene runs through two-and-a-half pages," Irola says, "and it gives the audience a real profile of his character. During screenings, the audience is so quiet and engaged, you can hear a pin drop in the theater."

Money was a scarce commodity. *An Ambush of Ghosts* was made on a proverbial shoestring budget of approximately \$1 million — less money than it takes to produce most TV movies and many hour-long episodic shows. But then, Irola had less of everything — time, equipment and crew.

The crew had comparatively limited experience on features, but they proved to be a talented group. If Irola wanted to use an 85 or a 100mm lens, she never hesitated, because she knew the assistant would be able to follow the most intricate moving shot.

Irola frequently doubles as operator. "I've shot so many documentaries (around 100, including magazine show segments)," she says, "it gives me a framework for composing and lighting images in features. I like being responsible for composition. Framing is a strength I have to offer."

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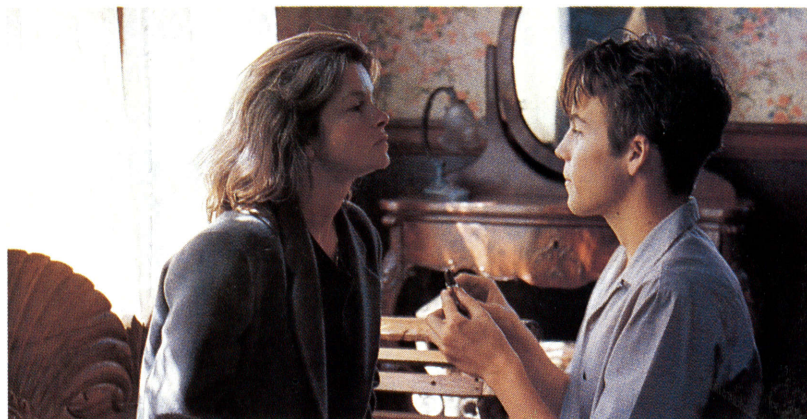
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Bujold and Dorff attempt to connect. A 12K with diffusion was aimed through the window and lace curtains.

She did have an operator on *Ambush*, however — someone who had worked with Lewis on another film as director of photography. Because there was no video tap (neither she nor Lewis wanted one), "it was a little rough during the first few days. We were working 14 hours a day, but Hisham [Abed, the operator] never stopped asking me what I wanted. It was complex, because there was a tremendous amount of dollying. In the end, a camera operator I trusted gave me the freedom to concentrate on the rest of the job."

Also receiving praise for their work are the people at CFI Labs, especially Art Tostado, who was in charge of dailies, and timer Mike Mertens.

Although she doesn't like to talk about it, and insists it doesn't and shouldn't make a difference, Irola is one of only a handful of women directors of photography shooting features in Hollywood. "You are going to occasionally run into some people in a new crew who have been at it for thirty years, and their first reaction is to ask, 'Who's the broad?' But as soon as I assert leadership and show that I know what I'm doing, I never have a problem. Basically, a crew wants the cinematographer to be decisive."

Irola believes that her documentary experience has given her an extra dimension.

She did have an operator on *Ambush*, however — someone who had worked

"You learn how people move, what available light looks like in real-world circumstances, and whether a husband and wife make eye contact when they are sitting in their living room talking or are in the kitchen cooking. You also learn about choosing film stocks when you are in different situations where available light is a factor."

That helped immensely in *Ambush*, since so much of the film was shot in the old house with its many windows, some of them stained glass. Irola's preference is to eschew rigging hard overhead light; it just doesn't look or feel natural to her. "In reality, most interior light doesn't come from overhead," she says. "It comes from windows and lamps."

Of course, there are exceptions to every rule. "If you are making 360-degree turns on dolly shots, you start thinking about rigging lights overhead," she says. "Other than that, I tell the gaffer, 'I don't want to see a wall spreader.'"

The interior light sources were changing constantly because of the movement of characters followed by the camera. Irola used a mix of films, including the 500T Eastman EXR 5296 for interiors and night work, the 50D ultra-fine-grain EXR 5245 film for most daylight exteriors, and 250D Eastman 5297 film in tricky exterior scenes. "We shot in a front yard with hot sunlight in the foreground, a shadowy area on the porch, and even darker interiors seen through the win-

dows," she says, explaining the need for a "fast" daylight film.

Her favorite film for other daylight exteriors is the 5245 stock, which she calls "a gift from heaven." She explains, "The colors are truer and more deeply saturated, and it really holds details. We were shooting exteriors at the time of day when the sun is your friend — it's backlight. But we had a wide tonal range from hot sunlit objects to dark shadows, and it held it all — the brightest highlights and the darkest picture elements in the shadows."

For daylight exteriors, Irola generally employed neutral-density filters on the camera lens to keep the stop within a range of T4.5 to 5.6. "I didn't want to pull deeper focuses," she explains. "We usually didn't want the backgrounds in sharp focus." It was a fine line, because she and Lewis also didn't want mushy backgrounds: "We wanted to direct the audience's attention to specific parts of the frame."

The general design of the project was intended to make the audience see *Ambush* as a non-linear film. As the mother's guilt seeps into her soul, she is driven deeper into madness. Her remaining son is in his last year of high school and doesn't understand that he carries part of the burden. Key story elements unfold in a series of flashbacks. In an early scene, the son is having an inner dialogue with his dead brother. There are also black & white flashbacks which reveal details of the car accident.

"We shot the 12-year-old flashbacks in 16mm color, with a handheld Bolex camera," says Irola. "We planned to desaturate the colors. We asked the production designer and a film student to do the camerawork to help differentiate it from the work done by the regular crew. We wanted it to have the visual texture of a home movie." Ultimately, the scenes were printed in black & white.

There are also flashbacks of more recent incidents. When

the son finds the teenager hiding in the shed after accidentally killing another youth, the scene is spliced with flashbacks of the killing itself, which occurred a few days earlier. These are shot in 35mm format, and are only subtly differentiated by the use of color.

"The shed is dark," Irola says. "The only key backlights them. It has a cool blue quality. The killing happened at night on a football field. The only visible source is bouncing off the top of a red car where two guys are fighting. It becomes obvious to the audience that there is a difference between what the boy is telling George (the son) and the reality of what happened, which is depicted in murderous red-tinted flashbacks."

There is also more than a little visual pathos. The family moved into the old Victorian house just before the accident, and never finished refurbishing one of the rooms; the ladders, paint cans and plastic floor covering are still there, as if time had stopped.

"I used the house," says Irola. "I lit through windows. I used the stained glass, especially at night with a porch light shining through. It was a perfect space to work in because the owners had just bought it and hadn't refurbished yet, so we were able to dress the sets, and hang any wallpaper we wanted. We couldn't use the bedrooms upstairs, because people were living there. We used the first floor of another house across the street instead."

The rooms are cavernous, with huge ceilings that swallow light. The settings include period Tiffany lamps used as practicals. When they are on, they glow very warm, and are sometimes augmented by ambient pink or blue light from the porch light shining through the stained glass. There are no overhead fixtures — just a few bare bulbs that dictate the quality and angles of source light.

The old house is dark all

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of the time, justifying the fact that lamps are on even in daylight. Irola was constantly dealing with mixed color temperatures, but that was fine with her; it added to her palette.

Irola made vigorous use of practicals, lobbying the production designer to put lamps here and there, and frequently changing the bulbs to control and manipulate the color temperature of available light. She augmented practicals with KinoFlos and tungsten lamps. "The KinoFlos are great for location shooting," she enthuses. "They are small and controllable, and are available balanced for either daylight or tungsten light. All you need are a few flags and nets. They have integral barn doors."

Of her overall approach to the lighting, Irola says, "There are so many considerations: the overall design of the scene, the time of day, the setting, the motivation for sources, and where the actors and the camera are going to move. Most actors need a little fill light, and a bit of soft fill can take years off of someone's age. Usually, a little overexposure of the negative also helps."

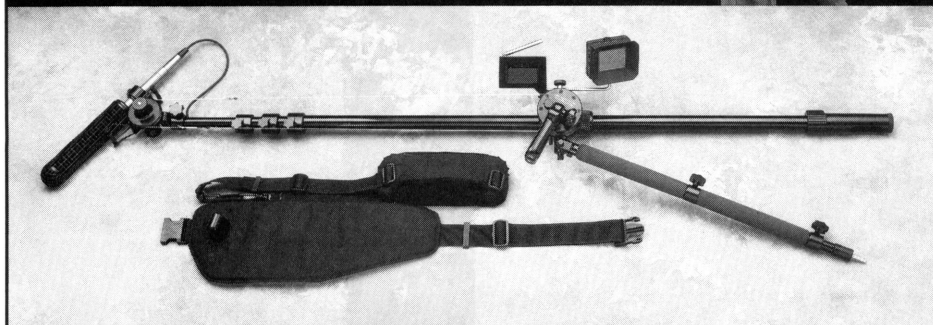
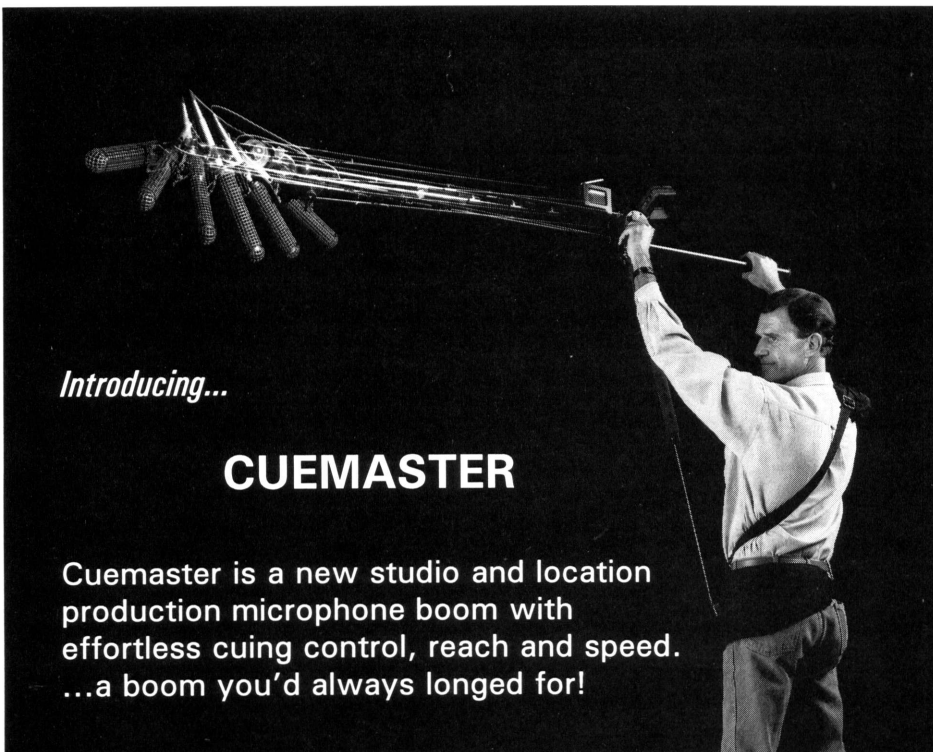
After all of the work and the peer approval at Sundance and other festivals, the filmmakers are now enduring the uncertainty of distribution. *Ambush* has European distribution and is doing well overseas. The soundtrack, released in both England and the United States, is also doing well. But as of yet, no American distributor has picked up the film.

"I know it will get into video stores, but I'm always shooting for the big screen, hoping lightning will strike — if not today, then tomorrow," says Irola. "Maybe Everett (Lewis) or one of the actors will achieve superstar status, and their films will come into vogue. You have to look at it optimistically. There's a small piece of me in every film I shoot, so I always want to give it my best shot."

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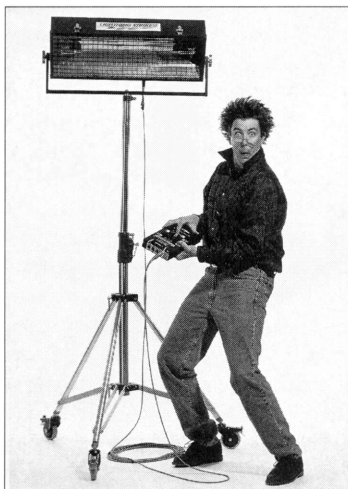
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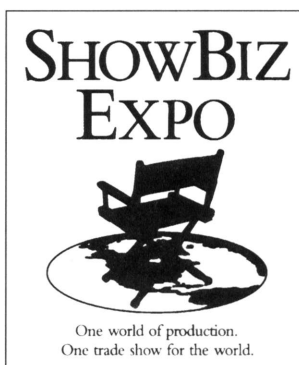
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Blending Three Looks for *North and South III*

Having trained with the greats, cinematographer Don FauntLeRoy takes the reins for latest installment of ABC's Civil War miniseries.

by Stephen Pizzello

In the blazing late-summer heat of Texas, a westbound wagon train is slowly traversing a valley located between two grassy hills. As the wagons reach the valley's midpoint, the air of sleepy calm is suddenly pierced by a rumble of hoofbeats and the war whoops of Cheyenne Indian ambushers thundering down over the north-

galloping around the circle's perimeter, brandishing rifles and screaming for settler blood. Seconds later, the wagons' canvas sidings roll up to reveal armed cavalry soldiers within; the ambushers have been set up. Bullets are traded back and forth, but it quickly becomes apparent that the Indians will not withstand the assault.

As suddenly as the attack has begun, however, salvation arrives in the form of a group of "buffalo soldiers" (a Civil War term for black troops) whose horses charge into view over the southern hilltop. Realizing that they are outnumbered, the Indians abort their attack and disperse, dodging bullets and the explosions of primitive grenades as they flee. The cavalry's setup has been foiled by a rogue unit

This frenetic sequence is one of the high points of the ABC miniseries *North and South III: Heaven and Hell*, which aired on Sunday, February 27, Monday, February 28 and Wednesday, March 2. Although the "Indian ambush" is a tried-and-true element of the Western genre, the show's writers have clearly added their own clever twists, while cinematographer Don FauntLeRoy has employed every tool at his disposal in an effort to create visual excitement. Five cameras are deployed to cover the action: the master shot is recorded from a Panavision rig atop a Titan crane; a high-speed camera set to 72 frames per second captures prime bits of slo-mo action, including explosions and a "horse fall" stunt; a unit outfitted with a 600mm lens records close-ups; a hidden camera near the wagons tracks the arrival of the buffalo soldiers; and another unit with a 200mm lens is placed at a strategic distance to gather in a wider view of the carnage. During a previous take, FauntLeRoy and his crew spiced things up by mounting a Pogocam on a wagon wheel and planting a camera with a 10mm lens in the center of the wagon circle.

After the action has stampeded past the cameras for the final time, the actors and crew members mingle together in a slightly bizarre tableau that re-



Photos by Vern Evans, Robert Farber, and Craig Spodin, courtesy of ABC.

ern horizon. Seemingly caught by surprise, the wagon drivers draw their rigs into a tight circle; the wooden wheels are still clattering to a halt as the attackers begin

led by Charles Main (played by Brando lookalike Kyle Chandler), whose rivalry with the cavalry's captain has reached the boiling point.

Produced by Hal Galli
Directed by Larry Pearce
Director of photography,
Don FauntLeRoy



sembles a cocktail party thrown by Sergio Leone and Fellini: Indians on horseback greedily gulp down cups of Gatorade, while Chandler, having incongruously added sunglasses to his cowpoke attire, has wandered off to a clearing with a cellular phone. FauntLeRoy surveys the scene with a wide grin. "This shoot has been a fairly grueling experience, but let's face it, stuff like this is *fun*," he says. "Of course, this particular sequence is not as large as Larry and I envisioned it. I was thinking, 'Let's have 300 Indians come over the hill.' As you can see, the producers were thinking more along the lines of 25. But we're compressing everything with long lenses, and with a lot of cuts and angles it'll look big."

No further trickery was needed to enhance the location itself, a 13,000-acre ranch owned by the brothers of the late Texas governor John Connally. Located a 45-minute drive south of San Antonio, the sprawling property offered FauntLeRoy a variety of scenic vistas which he happily exploited. "The heat down here is unbearable, there are dragonflies all over the place, and you've got to watch where you step because of the fire ants and chiggers,"

FauntLeRoy cautions at one point. "But for shooting purposes, this location has really fit the bill; it offers plenty of room to roam. Once we finish the wagon-train stuff, we're heading to another part of the ranch to shoot a massacre scene at our Indian village."

As he talks, FauntLeRoy exudes enthusiasm. *North and South III* is his largest assignment to date, and the biggest break of his career. After spending a decade and a half as both an assistant and a camera operator, FauntLeRoy is making the most of the opportunity. "I can't thank the producers and the director, Larry Pearce, enough for giving me a chance," he says. "They really allowed me to be creative, and I'm very proud of the work I've done."

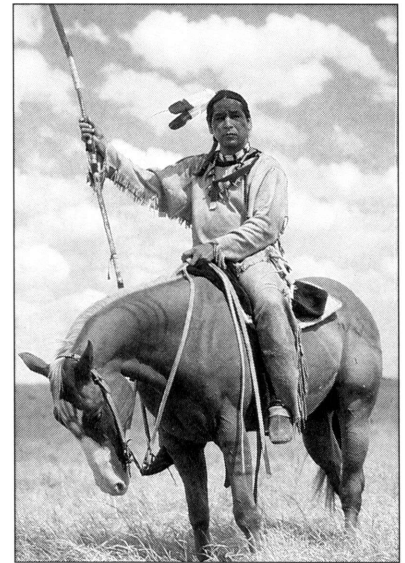
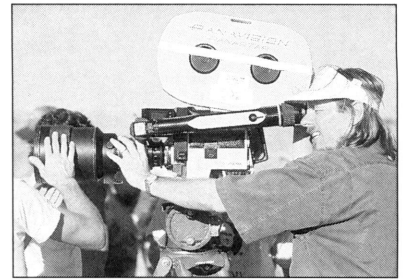
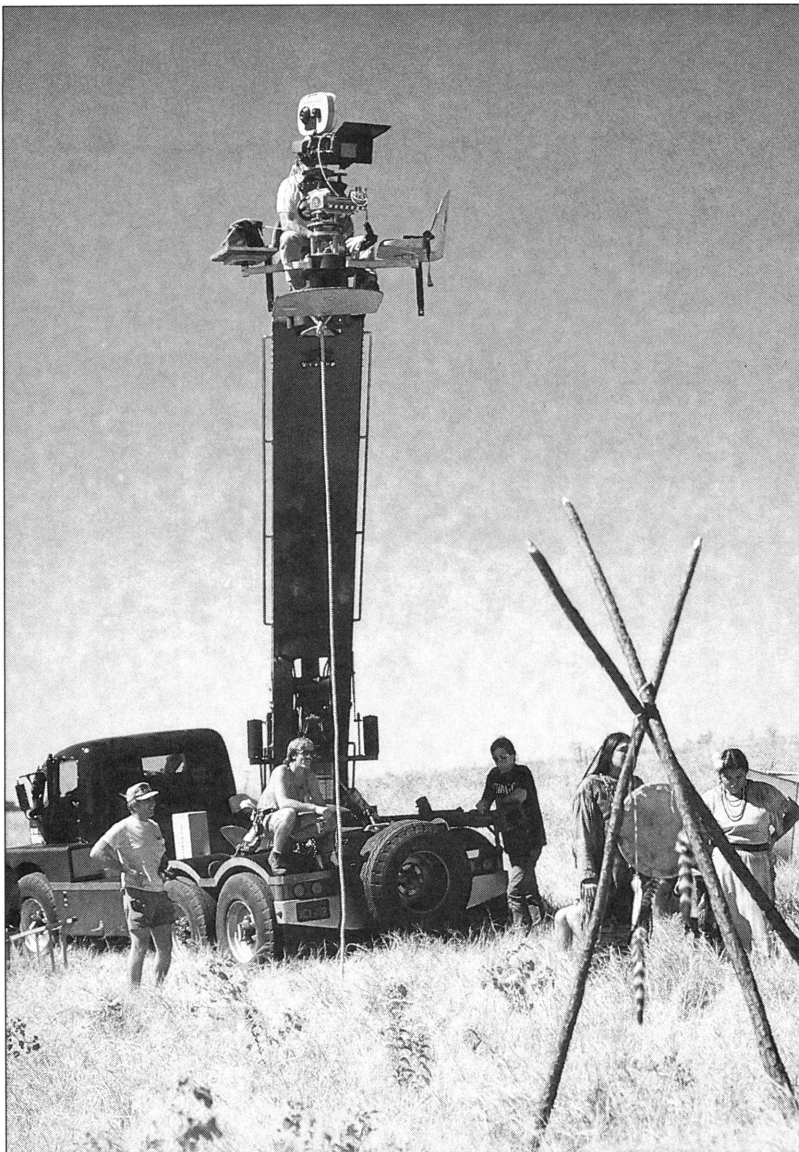
The project's scale, he says, was a bit daunting at first, but FauntLeRoy brought a considerable amount of field experience to the table. His grandfather was a still cameraman and his father an optical cameraman, but FauntLeRoy says that he was not initially interested in following in their footsteps. His interest was piqued by a cinema course he took in the 12th grade; after mak-

ing his first film, however, he went to USC with the intention of playing baseball. His athletic pursuits were interrupted by an injury, so he took a summer position at his father's optical house and made it into the union. "From that point," he says, "I never looked back. I eventually got bored with being inside all the time, so I started pounding on doors."

Assistant cameraman Dick Barth gave FauntLeRoy one of his first jobs, as a film loader on 1977's *The Turning Point* (shot by Robert Surtees, ASC). He then worked on the miniseries *How the West Was Won*, during which he met first assistant Dick Meinardes. Meinardes continued to give FauntLeRoy work for three or four years, and introduced him to cinematographer Harry Stradling, Jr., ASC. When Meinardes, Stradling's usual first assistant, got tied up with projects in Europe and Japan, the director of photography asked FauntLeRoy to fill in. FauntLeRoy assisted on 11 films shot by Stradling, during which time he amassed as much technical knowledge as he could. "I developed my style from the guys I worked for, especially Harry and

Opposite: Stars James Read, Lesley-Anne Down and Kyle Chandler stand against the background of the war-torn South. This page: On location at the Connally Ranch, filming the foiled ambush.

Clockwise from large photo: Getting a high angle with the help of a crane provided by Production Services Atlanta; FauntLeRoy lines up a shot; an Indian extra in full battle regalia.



Bob Surtees," he says. "The old-school guys were all direct lighters. They would put a lamp up and then paint it down to what they wanted. The film stocks are different now; back then, you needed to direct the light because you didn't have a film stock that would really reach into the shadows and pull detail out. Now you can walk into a room and, if it's white, just bounce light into the ceiling and get an exposure that will pull detail out of the faces.

"When I first started in the business, we were using 5248, then 53, then 47. With those film stocks you needed to use a lot of light. I did a lot of work with Billy Cronjager, [ASC] and I'd sit back and watch him. He'd walk into a

set, take a look around, and then start lighting at the back and move forward; there'd always be a very big unit at the front, and he'd just turn it on and flag it down. It wasn't all flat, flooded light, of course; there were lights coming through windows and so forth, but he used a lot of light and just carved what he wanted out of it. Those guys *never* used bounce light, and it rubbed off; I generally only use bounce lighting when I'm pressed for time."

FauntLeRoy eventually landed a gig as cinematographer on an ABC Afterschool Special, which led to TV movies and some low-budget features. He had also worked on both the first and second installments of *North and*

South (as assistant cameraman to Stevan Lerner, ASC on *I* and in a six-week stint as operator for Jacques Marquette, ASC on *II*), and wound up marrying leading lady Lesley-Anne Down.

Picking up the narrative of the first two installments, *Heaven and Hell* follows the tale's characters in the aftermath of the Civil War: some head westward, while others travel back to the ruins of South Carolina's Mont Royal. Returning actors include Lesley-Anne Down, James Read, Philip Casnoff, Terri Garber, Wendy Kilbourne, Jonathan Frakes and Genie Francis; new roles are essayed by Kyle Chandler, Peter O'Toole, Robert Wagner, Cathy Lee Crosby, Deborah Rush, Billy Dee Williams, Mariette Hartley, Steve Harris and Gregory Zaragoza, among others.

FauntLeRoy says he used his preproduction time to review the first two parts of *North and South*, and to call Stradling and pick his brain on period photography. "I decided to go as

natural as possible in my approach," he relates. "There was no electricity back then, so everything was candlelight, firelight, sunlight or moonlight. In general, that worked. I ran into difficulty while shooting one scene that takes place at Mont Royal; I found out that it can be tough to light very dark-skinned people when they're standing next to very fair-skinned people. The scene was a night interior lit by oil lamps on a table and a fireplace on the other side of the room. There was a spot where it looked a bit overlit in dailies, but it'll be fine in the coverage."

The cinematographer's camera package was supplied by Panavision and his workhorse lens was a Primo 17.5-75mm zoom. Film stocks were Kodak 5296 and 5245. "I even used the 96 for some exteriors, especially in the South because most of the locations were under trees and we were working in shade all the time; the 96 really seemed to pull into the greens and dark spots much better. The new 96 didn't seem to be as contrasty as the old 96 stock, especially in terms of the color saturation. It pulled more details out, and the highlights held very well. We did some shots that ended with the sun in the frame, but the stock didn't blow the light out and the blacks didn't go totally black. It held the whole range of maybe ten stops, whereas the old stock used to go toward the highlights and lose a little detail in the shadows."

FauntLeRoy concedes that the producers and Peerce were a bit leery of using a relative newcomer, and that executive producer Mark Wolper, in particular, paid close attention to the early dailies. "Mark was concerned about the first couple of weeks of footage, but we were shooting the war-torn South, and it was very contrasty because they didn't have anything: the North had come through and taken everything away, Sherman had burned everything down, and it had to look gritty. So I was making the interiors look as if

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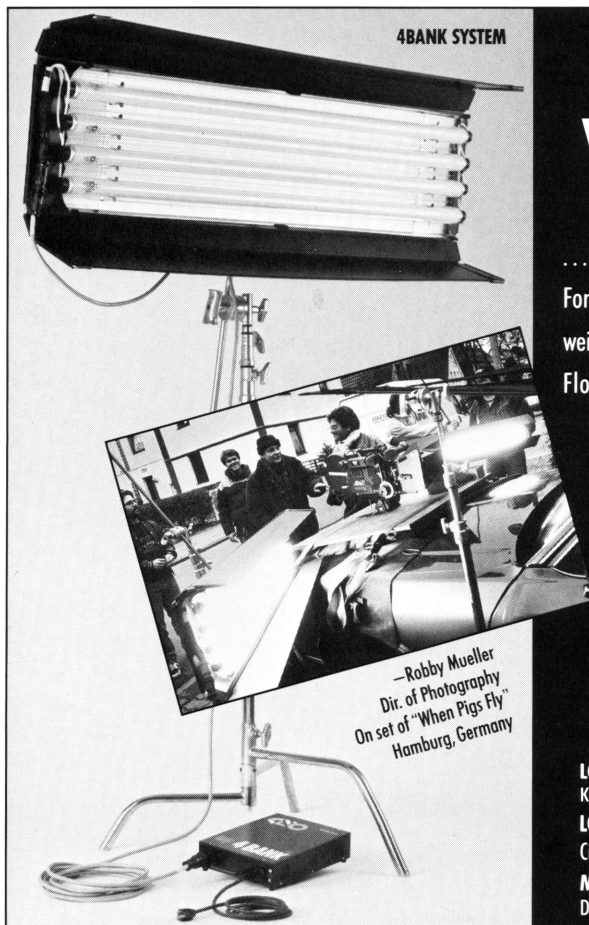
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these people were really poor; they were living in shacks. But all of a sudden, Mark seemed to think that my lighting was starting to grow. Well, it wasn't that my lighting had grown, but that we were shooting scenes in the North — which was very rich!"

The cinematographer says that the first days of shooting were the toughest, and not only because of his own desire to repay the producers and Peerce with good work. "The film opens with sepia-toned flashbacks from Parts I and II. It finally comes up to date, and the house we were shooting for that sequence, which was located in the King William section of San Antonio, was just a nightmare. We see Terry Garber's character, Ashton, arrive at the house and walk into a living room, where she steals an embroidered picture of the original Mont Royal; then Lesley's character, Madeline, comes down a staircase to greet her. The angle of the stairs and corridor was L-shaped, and the living room was really deep. We were down alongside the stairwell, and I just didn't have any place to put lights; I had a very difficult time doing what I wanted to do. The windows along the staircase weren't very large, and it was a nighttime scene anyway, so I didn't want to blow out the windows by using lights in them. I couldn't fit a big unit anywhere inside, and the way Larry and I laid the shot out, there was also no way to put any light stands on the floor. The place did have beamed ceilings, but when I started to look at them the woman who owned the place started to freak out. Eventually, I did just hang everything, which worried me because I hate going too high with the lights when I'm shooting women — especially my wife!"

In planning out his schematic for the show, FauntLeRoy had decided to create individual looks for the North, South and West. For the North, he pulled everything off the lens except a double-fog to create a cold, crisp



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look. "Most of the North footage consisted of interior shots in old mansions and so forth," he says. "I had some real fun in those interiors. One particularly interesting scene was a gathering after a funeral, involving about ten characters and four pages of dialogue. The house was huge, and it was all hardwood floors. As I looked around, I kept reading this scene and I said to Larry, 'You know, we can do something with this.' They didn't want to give me a Steadicam, but I kept poking Larry and saying, 'Remember the opening scene from *Touch of Evil*? We can do this entire dialogue scene in one shot if we really block it out.'"

Pierce caught the bug, so he and FauntLeRoy set aside an hour to choreograph moves with the actors. The assistant director began to worry, however. "He said, 'this is a feature film shot, we don't have time for this,'" FauntleRoy recalls. "But the walls of this house were all white, and by the time we were ready I had already pre-cabled the house and set up all of the big lights outside the windows. I told the AD I could light the interior in an hour and a half. And once we started shooting, we did it in two takes and walked away. When we looked at the footage in dailies, the editors loved it and were just praying it hadn't been covered. And it hadn't!"

For footage of the South, he says, "I wanted the buildings and the sets to look as if they'd been burned-out and ransacked, but I didn't want to take away the beauty of the South, the trees and the vistas. I shot the South very contrasty, but I used a lot of filtration: I used a 1/8 coral to give me some warmth and richness, and a 1/8 double-fog so it wasn't too harsh. I used a pola screen to pull out the skies and colors, and I used grads a lot. I also used some Mitchell diffusion for close-ups and for matching masters."

To simulate the hard-scrabble look of the West, FauntLeRoy reverted to the ways of his mentors. "I shot all hard

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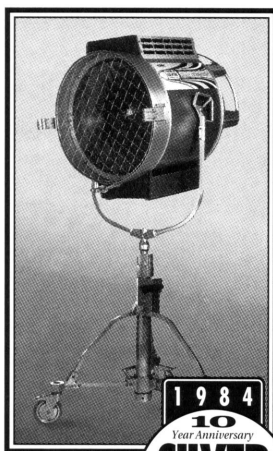
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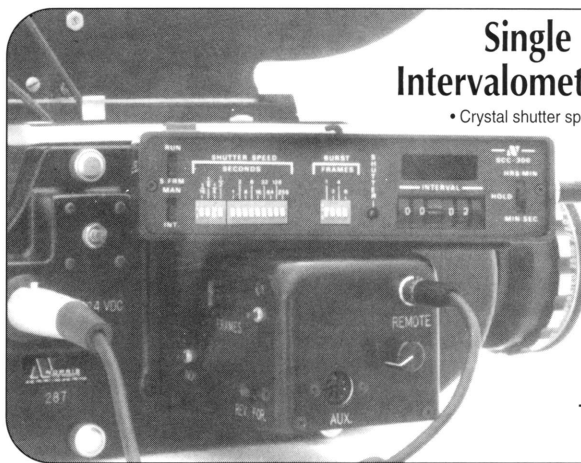
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light, with no bounce at all," he says. "I used a lot of CTO on the lights and a ¼ coral with no diffusion whatsoever. I shot exactly as all of the old Westerns were shot — a lot of backlight, strong back-crosses, half-light. If someone was wearing a hat and it threw a shadow across his face, we left it there, because I wanted that difference between the West and the other looks."

FauntLeRoy credits Peerce with making his job both easier and more rewarding. The director let his cinematographer have as many rehearsals as he asked for, and remained open to all creative suggestions. "We got some really great transitions from scenes, coming out of big crane moves to dolly moves. We really got into each others' brains; after a while it got to the point where, after one or two rehearsals, we'd look at each other and just smile because we knew what we wanted to do. And it only took two weeks for that telepathy to develop."

Peerce's flexibility paved the way for one of the show's most eye-catching sequences, a love scene that had been considerably simplified in rewrites. FauntLeRoy convinced Peerce to let him shoot the scene the way he had originally intended. "When we were scouting locations, they were trying to put me at a practical location. I turned to Roger Moss, the art director, and said, 'Roger, why are they trying to do this in a tiny room? Wouldn't it be better if you just built a nice three-walled set with a fireplace in the center of a warehouse?' It turned out to be cheaper to build the set, and Roger, as usual, did a fantastic job. Of course, then I had to turn to my crew and say, 'O.K., boys, this is going to be five hours of lighting.'"

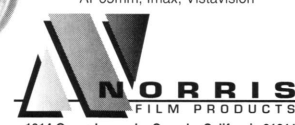
While discussing the scene with his wife, FauntLeRoy recalled the film *Hanover Street*, in which Down had done love scenes involving long dolly moves toward the actors. "I borrowed that approach for *North*



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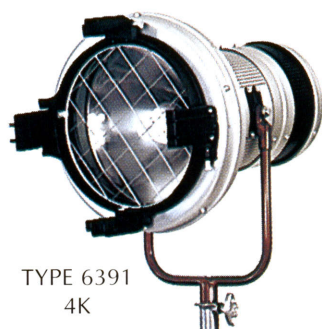


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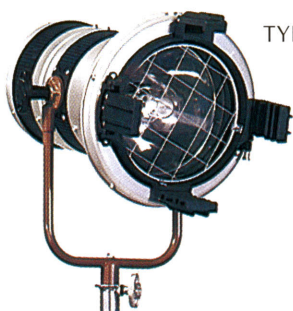
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and South," he admits. "Once the lights were in place, we put a 300mm lens on the camera and dollied in across the floor, shooting through some gauzy curtains. As the curtains opened up, we changed the camera speed from 24 frames per second to 96, and we managed to get it on the first try. The AD was concerned because we'd spent six hours on 1/8 of a page of footage when we had 6 1/2 pages to shoot, but I told him, 'Don't worry about it; the rest is all talking heads.' And we did eventually manage to finish the whole sequence in ten hours."

FauntLeRoy hopes that the finished results of the filmmakers' extra efforts will prove that television work doesn't have to be cut-and-dried. Taking stock of his experiences in San Antonio, FauntLeRoy gives the area and its resources an enthusiastic thumbs-up. "I brought a gaffer, a key grip, a dolly grip, two best boys, two assistants and a camera operator from Los Angeles, but the rest of the crew was from San Antonio," he says. "We got some terrific local people. They learned very quickly and worked incredibly hard."

Of course, every location has its own indigenous perils, and San Antonio is no exception, as one unlucky extra discovered. "We were shooting in this rickety old theater, and I was operating the B camera with a 400mm lens to get some close-ups," says Fauntleroy. I was just panning off this guy in a Union uniform when I saw him flinch: a scorpion had fallen out of the rafters, hit the floor, run up his pant leg and stung him! He knew that the camera was on him, though, and he actually tried to contain his pain so he wouldn't ruin the shot. But then the scorpion nailed him two more times, and he just jumped clear out of his seat. He was carted off to the hospital, and everything turned out O.K., but let me tell you, I never saw a guy come out of a uniform so fast in my life!"



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A Grand Tour for *Innocents Abroad*

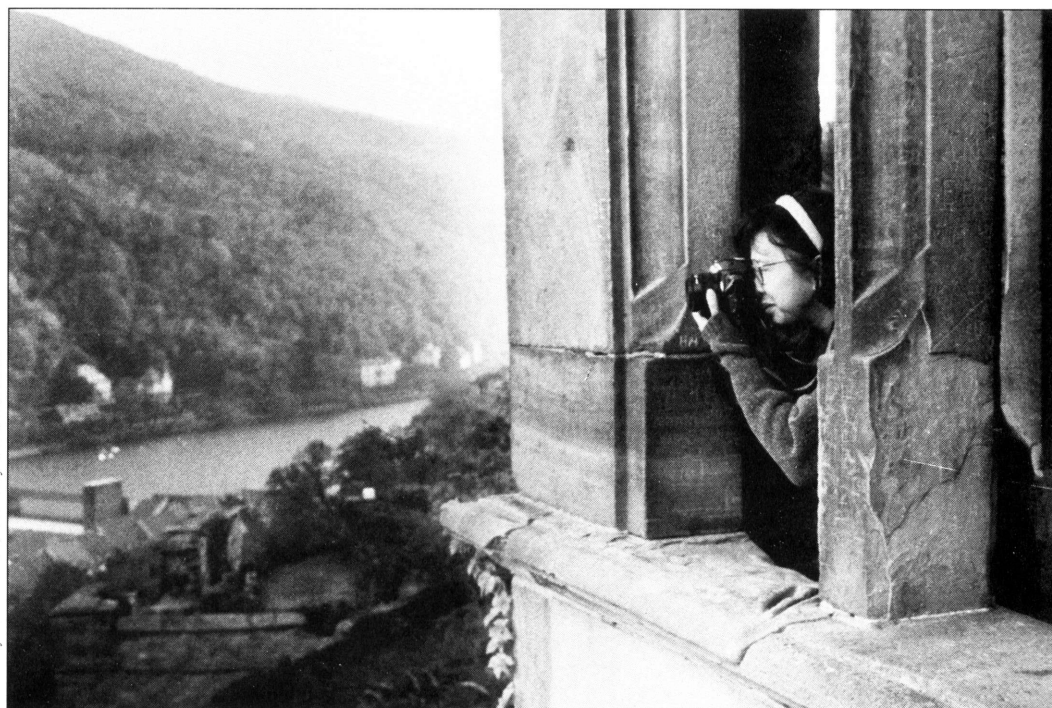
Europe on 8,640 feet a day.

by Les Paul Robley

What happens when a prize-winning documentary filmmaker follows a group of 40 Americans on a whirlwind tour of Europe, visiting ten countries in two weeks? It's been done, you say? Yes, but not in quite the same way.

Innocents Abroad takes a candid, amusing look at how first-time travelers see other cultures, and how those countries, in turn, perceive them. The film was made by renowned independent director/cinematographer Les Blank, best known for his documentaries *Burden of Dreams* (1982) and *Garlic Is As Good As Ten Mothers* (1980), which led New York Times critic John Rockwell to write: "Blank is a documentarian of folk cultures who transforms anthropology into art."

The film was conceived and produced by Vikram Jayanti, directed and photographed by the 59-year-old, Florida-born Blank, and edited by Blank's wife, Chris Simon. Globus Gateway, the world's largest operator of escorted motorcoach tours — showcased in the earlier 1962 comedy *If It's Tuesday, This Must Be Belgium!* — allowed Blank and his film crew complete and uncensored access to "European Horizons" tour number KH1009A. The tour follows the 19th Century traditional Grand Tour of Europe: starting in London with the Changing of the Guard, flying to the windmills and wooden shoes of Holland, floating by majestic castles on the Rhine, busing through the Swiss and Austrian Alps, cruising the canals of Venice, contemplating



Photos by Lou Weiner. Courtesy of Flower Films

the Leaning Tower of Pisa and the Roman Colosseum in Italy, then finally stopping off at the Eiffel Tower for a Can-Can revue in Paris. The group shops for cuckoo clocks in the Black Forest, learns yodeling in Switzerland and gets lost in Rome, all the while learning lots of interesting European folklore from tour director Mark Tinney.

Innocents Abroad is a glimpse into the human aspect of one of the world's largest industries. It chronicles a diverse group of Americans experiencing Europe for the first time, struggling with and laughing about cultural differences, and seeing ancient historical sites and legendary cities. The group includes young people as well as older couples, both fulfilling dreams of a lifetime.

Innocents Abroad is the second Blank film produced by

Vikram Jayanti. The first was 1987's *Ziveli: Medicine From The Heart*, a treatise on traditional Serbian music in the United States. Both have been involved for several years with Anthropolos, the world's largest documentary film festival — Blank as a participant and judge, and Jayanti as an organizer.

Descended from Russian Jews and the son of an East Indian politician, Jayanti was educated in private schools in England and France, constantly traveling between continents throughout his youth. Since moving to America in 1977, Jayanti had wanted to do a comedy of manners about miscommunications between Americans and Europeans. A keen observer of people interacting with different cultures, he had always been curious about how tour groups perceive foreign countries, and how

Tourist Rio Denoga takes a picture from Heidelberg Castle.

Produced by Vikram Jayanti

Directed by Les Blank

Director of photography, Les Blank

Globus Gateway Tour Group KH1009A, and film crew, in front of the Coliseum.



the people of those countries view visitors. He came up with the idea of documenting a bus tour and approached a friend who was programming a new series for the BBC.

Once he obtained the majority of the \$300,000 budget in presales from the BBC (plus lesser amounts from PBS, LA SEPT in France and Germany's WDR), Jayanti began contacting several companies in the European travel business for approval. Globus Gateway, a large tour company, eventually agreed to take the gamble, but only on the proviso that the completed film made them look good. "It would have been very easy to stomp down on them," recalled Blank. "Vikram convinced them we weren't that kind of a film crew by showing them my previous films and reviews." Globus liked the idea and welcomed the exposure it would give them, and were generous enough in accommodating the crew that Jayanti was able to present newlyweds Blank and Simon with an all-expense-paid honeymoon trip to Europe.

Simon and the rest of the crew had to get up at 5 a.m. every morning to prepare for the day's filming and sightseeing activities. While the other tourists went to bed after a long, tiring day of travel, Blank and Simon stayed up until midnight interviewing

tour director Tinney in his hotel room.

Blank prefers to work with small crews in order to minimize the budget and cause less anxiety for his subjects. Fewer camera people reduces the risk of intruding upon the environment and influencing the reactions of the principals. He therefore likes to photograph the films himself, serving as director, cinematographer and camera operator. He used to edit his early films, but now delegates this job to wife Simon to obtain a fresher look. The main crew consisted of Blank, producer Jayanti, assistant cameraman Lou Weinert and sound recordist Simon.

The primary problem Blank and his gang of four faced was winning the trust of their fellow travelers and the tour director. For starters, the subjects all had to sign release forms allowing Blank permission to use their likenesses in the film in whatever way he desired. "There was one person who wouldn't sign the release until the end of the tour, but when it was nearly over, she signed it," he said. "We wanted them to realize early on we were okay and not be too guarded. At first they were a little camera-shy, and we were self-conscious about shooting them, but it didn't take long for that to break down and they forgot about it after a while."

For example, Mark

Tinney provided him with an interesting revelation about the inner life of a tour guide. A veteran of hundreds of tours since 1976 and author of several books on European history and a memoir on his career, Tinney gave the film a wealth of clever insights into the mass tourism industry and the dynamics of group activity. In the film, Mark jokes that on a good tour, it makes his job much simpler if the tour group members "lose their individuality. One hopes that they don't entirely lose their individuality, but there certainly is a group ethos, much to my relief." He believes that tours like these can change a person's perspective, "if they've reached the point where they're able to open themselves to change. I feel my job as tour director in some respects is to be like the gardener with a watering can." In his book "Follow Me," a lighthearted look at the adventures and misadventures of being a tour director, he quips, "Hell is where the cooks are British, the police are German, the lovers are Swiss, the mechanics are French and everything is organized by the Italians."

Early film preparation involved travel research to know beforehand what interesting locales existed which the crew could use to their advantage. "We followed the Globus itinerary and examined the special features offered in each place, so when we got to Venice, we knew there'd be a gondola cruise and a walk around San Marcos Square," Blank remembered.

This also entailed obtaining permits to shoot inside some of the monuments forbidden to tourists with cameras and camcorders. Noted Blank: "We talked our way into Westminster Abbey, even though we didn't use the footage. We weren't allowed to film inside the Vatican. For Michelangelo's David in Florence, we barely got permission to use the camera without a tripod. When one of the people in

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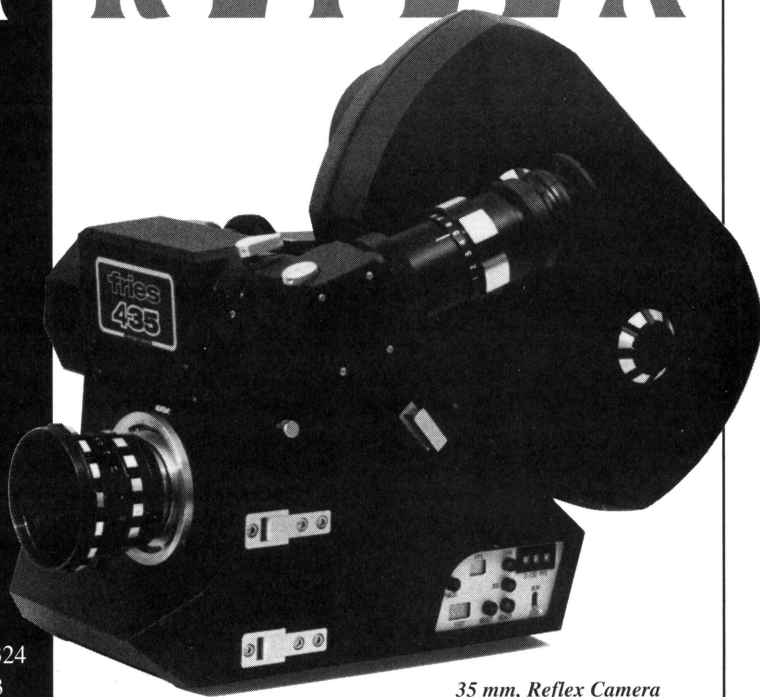
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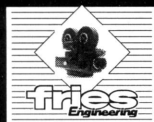
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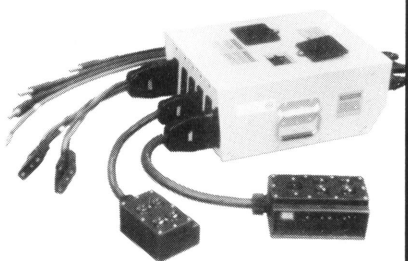
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charge found out we were in there, he tossed us out, but we were able to grab a few handheld shots on our own without the aid of a Steadicam." In documentaries, Blank likes using the bouncy handheld look for a less orchestrated feel. He employed his own 16mm Aaton, equipped with a 9.5 to 95mm 10:1 Angenieux zoom lens, for the entire three week shoot.

Shooting on a bus presented its own set of hassles, since Blank knew he'd have bright daylight outside with inadequate interior lighting for his subjects. The tinting of the window glass enabled him to balance the exterior and interior lighting. Sometimes he split the difference in exposure, with the outside becoming a few stops overexposed. But it always retained some detail and did not wash out entirely, as in some low-budget documentaries.

"We sometimes went with portable battery-driven HMIs to achieve the daylight color temperature balance," he recalled. "These were a pain to work with because they're always screwing up. You have to kick 'em around, they're as heavy as hell and they often burn out, so you have to have an expensive spare around. We rented two units out of London and encountered endless problems, but the overall result, I thought, was pretty good. As it turned out, we may have had enough light inside the bus to shoot most everything we got without the extra lights, but we used them a lot in other situations, which made them necessary."

He primarily used high-speed daylight film for bus interiors and slower 5248 with an 85 filter for exteriors. Normally, Blank shot with his lens wide open on the bus, unless he was filming passing countryside. "On bright days I could stop down, but it became too obnoxious for the tourists to always pump up light on their faces. Since they weren't really benefitting by our

being there, we had to do whatever we could to not get in their faces.

"For sound we had to pray that the P.A. system on the bus would be adequate. To get the sound of the guide talking, we miked these off of speakers above each of the passenger's seats. The English bus was purely miserable, and had we had a bus with that quality of sound system (throughout the trip), the film would not have worked at all. The (continental) bus had a fairly good address system."

A total of four camera batteries were used during principal photography. Every day the old cels wore out and every night they had to be recharged. A good new battery usually lasts Blank up to six 400-foot rolls of film. But these died after only two or three loads. So, Blank used only three 400-foot magazines at a time. This required assistant Weinert to continuously reload mags in the back of the bus with a changing bag.

For group daylight exteriors, round reflectors were employed in some of the close-up interviews to provide fill light. But these proved ineffective for group shots. "Usually, in documentaries, I try to use available lighting to obtain a pleasant-looking image," Blank admitted. "Often I'll shoot people in the shade or with their backs toward the sun. I try to avoid full directly-lit situations because it looks harsh and contrasty. Ideally the background should be in the shade along with the subject. I try to limit my exterior shooting until an overcast day, then I shoot like crazy. That way everything is nice and even, with soft, pleasing light."

The second camera unit consisted of French and Belgian filmmakers. They were able to capture impressions from Europeans living and working in tourist hot spots, asking them about the tidal wave of peculiar Americans who rush through on buses. A French cook complains about

their insistence on boneless fish, and a gondolier in Venice reminds us that, whatever else can be said about them, "If the tourists don't come, we don't eat."

For the interior hotel and restaurant interviews taken on the fly, second-unit cameraman Louis Phillipe Capelle and assistant Benoit Dervaux tried to blend available light with artificial lighting. Often, since the group had to pass through so quickly, by the time the lights were tied into the circuits, the tour had already come and gone. Shooting a documentary is not the same as shooting a feature-length drama, Blank pointed out.

For staged interviews in hotel rooms, the crew bounced lights off walls to obtain a natural-looking image. Much of this lengthy interview footage was abandoned, however. Also, exterior shots of the tour group's bus were made by the Belgians. For the Parisian nightclub sequence, Blank incorporated Eastman 5294 rated at the recommended exposure index. He never had to push the film. The overall shooting ratio for the complete 84-minute film was 40:1, which included the second-unit footage. A truncated one-hour version of the film, *The Grand Tour*, was aired on the PBS Travel Series.

The subjects liked the finished film, with Globus preferring the abridged version — minus the unflattering, often humorous coverage of people in awkward moments. To the members of tour number KH1009A, it was like having their own professional video of the trip to take home with them.

"I was a little concerned about the fact that people, when viewing a finished film of themselves, often become more critical," said Blank. "Fortunately, they all enjoyed it immensely, even the lady doing a study of foreign restroom facilities."

The "toilet humor" sequence seems perfectly staged, though Blank says that nothing was set up for the cameras, even

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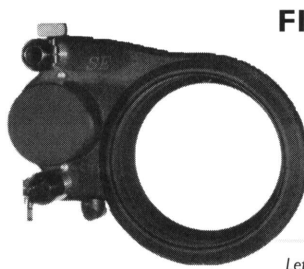
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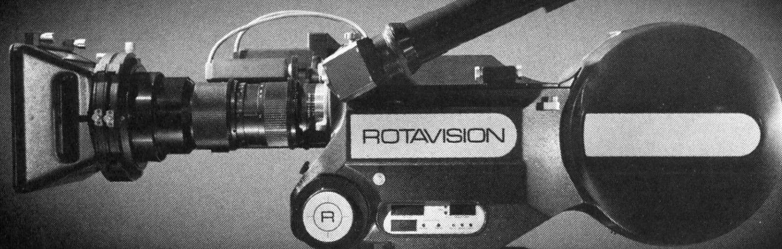
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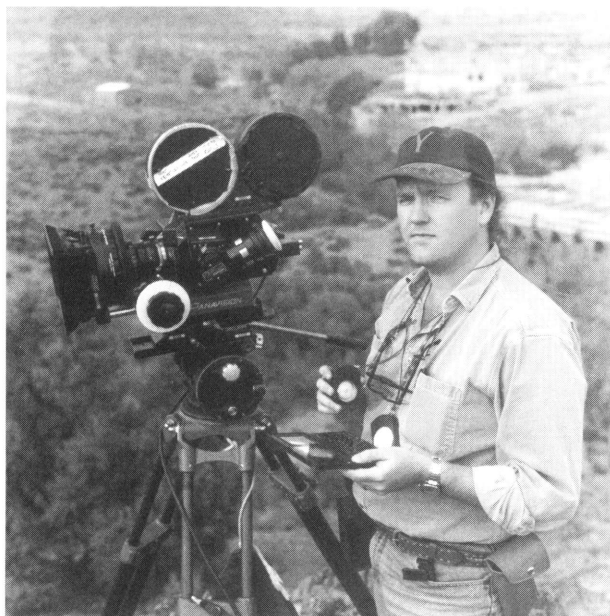
though he is not above doing that for a documentary. "Well, I'm particularly keen on toilets and toilet lore," he laughed. "Especially when you're traveling, it's of extreme importance to know when and where you're going to have your next opportunity for the toilet. My wife would not have come on the trip had she known that the toilet on the bus didn't function at all. The super hi-tech toilet could only be repaired in one European city — Milano. And we didn't even go through Milano on the trip, so they didn't let anyone use the toilet. I wanted to see how the other tourists were handling this, and one person in the group proved to be a gold mine of humor."

The lady's uninhibited ramblings made it all the more personal, and the scene was tastefully handled by Blank. Other questionable footage which didn't make it into the film was of a young tourist who had had a tad too much to drink and became more affectionate in public with an eager restaurant manager than she perhaps would have been under normal circumstances. "I don't think she would've liked us to include that in the film," added Blank.

Another less embarrassing experience occurred when another couple decided to leave the group voluntarily. Instead of taking the Mt. Pilatus excursion with the rest of the tour, the two decided to explore the city of Lucerne on their own, seeing how the Swiss live outside the tourist zone. Blank's cameras followed this footloose couple, adding a nice personal touch to the regimented tour group mindset. But technical troubles always come into play when the unexpected happens. In this case the second unit was able to cover the main group up on the mountain top.

One technical problem occurred in Florence during magic hour when Blank wanted to capture the late afternoon sunlight on the foreground subject he

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was interviewing as well as a Gothic church in the background. The situation proved all the more tricky since the square was dark with shadow as the sun was cut off by the buildings surrounding the church. Miraculously, the sun moved over slightly, creating a shaft of golden light in the square. Blank took advantage of this opportunity as the person's face was lit with the same light as that on the church facade.

During this magical moment, the British guide being interviewed talks about the magical effect the surroundings had on writer Stendhal when he visited this Church of the Holy Cross. Being an impressionable soul of the romantic period, the famous author allegedly fainted with exhilaration over the overwhelming beauty and history that existed in this one place. The beautiful light helped emphasize this special aspect of the surroundings. In fact, "Le Mal de Stendhal" (Stendhal's Illness) has become a medical diagnosis for a peculiar phenomenon that touches some tourists passing through Florence, a hypersensitivity to the strong cultural presence one finds in a city filled with the spirit of Michelangelo and Rossini. "Sometimes, people on a very intense tour finally hit Florence, and when they see all this art and beauty in one place, between the fatigue and beauty of it all, they have a psychotic episode," added Blank.

Adding zest to the proceedings is an eclectic soundtrack which includes Bob Dylan, Bo Diddley, Fats Waller, Sandy Denny, Jonathan Richman, and Mozart, as well as European folk and traditional music. Blank likes to illustrate his movies by paralleling the song lyrics with deeper meanings on screen.

Finally, 24 cities, 3000 miles and fourteen days later, the tour ends and Mark says goodbye to his charges. The end result is an insightful commentary which showcases Blank's unmistakable perceptive touch.

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As with his earlier endeavors — the lively *Gap-Toothed Women* (1987) and *In Heaven There Is No Beer?* (1984) — Blank achieves human interest and sociological revelation, while at the same time entertaining his audience.

Even the tour company was so pleased with the finished film that they are using the shorter version to attract future customers, despite the fact that the piece occasionally seems to poke fun at package travel in general. "It was not shot as a commercial for Globus," Blank agrees. "But this way it shows the advantages and disadvantages which any normal person would want to know about. You can't say that one way of travel is 100 percent better than another. Having come from a trip to China, I can appreciate the advantages of having your hotel planned out. Or waiting in a train station for three hours and being confronted by a ticket agent who can't speak your language, and being sold a ticket going somewhere completely different from where you planned to go. Even in Europe you can't always get your connections made, especially for a short two-week trip."

Les Blank believes that a good documentary will show both the negative and positive aspects of the story. By highlighting enough positive aspects, one can let some of the negative details float by. This enables the piece to have a heightened sense of reality. "It's not all pretty," he concluded. "There are some rough edges to the experience as well."



Muranian
VIPs Argo
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The Phantom Empire: Blazing a Trail to the Autry Empire

by George Turner

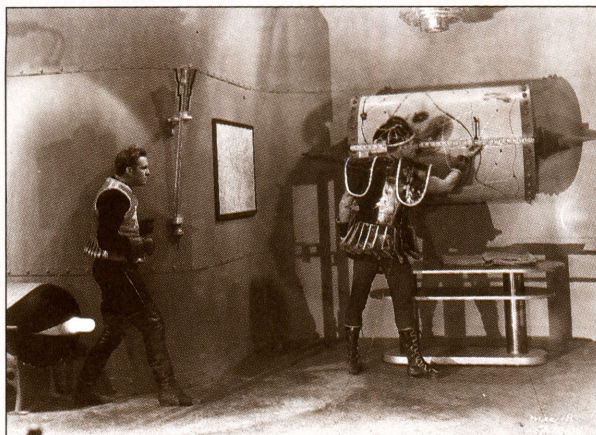
"Blazing the Trail" was the motto of Mascot Picture Corporation, one of a number of small movie companies that were lumped together under the derogatory appellation Poverty Row. At the helm was Nat Levine, a chubby, indefatigable entrepreneur from New York who knew how to produce a "not bad" feature for \$30,000 and a 25-reel serial for \$45,000. Mascot specialized in serials, turning out 31 of them from 1927 through 1935.

Mascot truly blazed the trail in this small but lucrative area of moviemaking. The company made the first sound serial (*King of the Kongo*, 1929), created 12-chapter adaptations of classics (*The Last of the Mohicans* and *The Three Musketeers*, the latter featuring John Wayne as a modern D'Artagnan),

and lured Tom Mix and Rin Tin Tin back to make their only serials. Mascot's most remarkable feat, however, was a crazy-quilt cliffhanger called *The Phantom Empire*, which started new trends and laid the cornerstone for Gene Autry's very real empire.

During the Great Depression of the '30s, many Poverty Row companies collapsed. Mascot stayed afloat, moving out of rented quarters in Metropolitan Studio to set up a production office above a cement company at 2001 Santa Monica Blvd., across the street from the Hollywood Cemetery. Levine made as much use of outdoor and practical settings as possible and leased stage space at rental lots when necessary. Each serial brought in enough profit to permit Levine to seed the next

Left: Gene Autry sneaks up on a missile operator (Leo Willis). Right: Frankie (Darro), Pete (William Moore), Autry and Oscar (Smiley Burnette, in robot disguise), trying to escape, encounter Argo.



one and also lose a bundle on the horses at the Santa Anita racetrack.

In 1934, some time after comedy producer Mack Sennett had declared bankruptcy, Levine leased the former Sennett Studio, a well-equipped 20-acre lot on the Los Angeles River in Studio City, and acquired an adjacent 21 acres to create a larger backlot. To his usual schedule of serials he added a half-dozen or more features per year. The features alone paid for all operational costs while the rentals from four annual serials returned a steady profit. Renting facilities to other independent producers brought in more revenue.

Mascot's only feature-length Western, produced in autumn of 1934, was *In Old Santa Fe*, a satisfying dude-ranch yarn in which star Ken Maynard sang an opening novelty number as he rode. A ten-minute ranch party sequence midway through the show featured Gene Autry, billed on the posters as the "World's Greatest Cowboy Singer," playing a guitar and singing with backup provided by his comical radio pals, hefty Smiley Burnette, diminutive Frankie Marvin and other musicians. The customers liked it.

Levine had met Autry in 1933 in Chicago, where the singer was a featured performer on the National Barn Dance radio show. A former railroad telegraph operator from Tioga, Texas, the peppy and personable Autry had a pleasant singing voice and was a gifted composer of Western ballads. Levine felt that he lacked the acting ability and virility to become a cowboy star, yet he decided to put Autry, Burnette and Marvin under a five-year contract, with Autry starting at \$100 per week, Burnette at \$75 and Marvin at \$60. Under Levine's guidance, Autry spent four months studying with an acting coach and training with two great stunt riders, Yakima Canutt and Yancey Lane.

By the time *In Old Santa Fe* was completed, preparations were under way to begin the Maynard serial *Mystery Mountain*. Unbilled and barely recognizable in minor roles were Autry and Burnette. Autry greatly admired Maynard, but in one coincidentally prophetic chapter, he shot the star out of the saddle.

Maynard, who had run his own production company at Universal, was infuriated by Mascot's fast-and-rough production methods. The serial went a week over its four-week schedule and \$15,000 over its \$65,000 budget, due to Maynard's insistence on making the picture as though he were still at Universal. However, it proved to be Mascot's most profitable serial to date, grossing close to \$1 million. Poverty Row producers weren't accustomed to thinking in such grandiose terms, generally hoping to make only a few thousand dollars in profit after costs. Nevertheless, Levine and Maynard mutually agreed to part ways.

Mascot had already announced a second Maynard serial, *The Phantom Empire*. The popularity of the musical dude ranch format of *In Old Santa Fe* had inspired Levine to develop the idea further into serial form. He asked his associates what they thought of giving Gene Autry the role planned for Maynard. The response was a unanimous "No!" and line producer Armand Schaefer threatened to quit. Yet, some instinct made Levine stick to his



plan: Autry would be co-featured with two athletic juveniles in an expensive (by Mascot standards) Western/science-fiction/musical cliffhanger in 12 chapters. Instead of investing in a costly star — Maynard had cost him an unprecedented (for Poverty Row) \$10,000 a week — he would devote much of the \$70,000 budget to a five-week schedule and spectacular visual effects, the likes of which had never been seen in a serial.

The original story is credited to Wallace MacDonald, a Silent Era leading man who had been reduced to playing heavies in the Talkies. He began writing Westerns for Columbia and soon embarked upon a new career as a story editor and screenwriter at Mascot. He later was supervisor of writers for Republic and by the late 1930s he had become a successful producer at Columbia, where his many pictures included several Boris Karloff and Peter Lorre pictures and the film noir classic *My Name Is Julia Ross*.

MacDonald said he had been browsing through a brochure about Carlsbad Caverns while

in the waiting room of a dentist's office. Moments later, while under the influence of "laughing gas," he envisioned a race of people living in cities deep in the caverns. This idea, coupled with legends of the lost continents of Atlantis and Mu, was developed into *The Phantom Empire* by MacDonald, Gerald Geraghty, Hy Freedman and Maurice Geraghty.

A wilder and more preposterous screenplay had never been concocted, a less influential producer would have been difficult to find, and a less likely star could hardly have been imagined. Although he co-featured Autry below the title with two youngsters, Levine made certain that the audience would be continually reminded of his name by casting him as a singing radio cowboy named Gene Autry! The same practice would be followed in all but one of Autry's subsequent pictures.

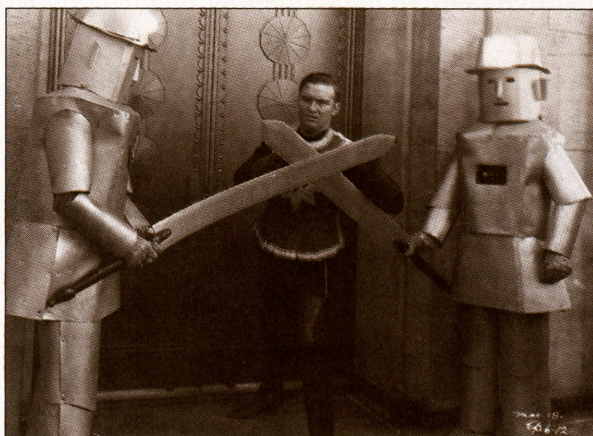
The juveniles were Frankie Darro, star of several earlier Mascots, and Betsy King Ross. No doubles were needed for this pair, who were daredevil riders. Seventeen-year-old Darro's short stature kept him in child roles, but he was a seasoned actor and vaudeville athlete who arrived at the studio in his convertible, smoking a cigarette. Betsy, a cute, freckled 12-year-old billed as the "World's Champion Stunt Rider," came to Hollywood in 1933 to appear in Fox's *Smoke Lightning* and stayed on for Mascot's *Fighting with Kit Carson*.

Somehow, it all clicked. Mascot's mélange made a lot of money and had a powerful impact on the future of two segments of the film industry, the Western and the serial. It also established Autry as a major box-office attraction and became the corner-



stone of his vast financial empire.

The story of *The Phantom Empire* is complex, combining the standard Western formula (a gang of crooks trying to seize control of a ranch) the discovery of with a lost civilization in the bowels of the earth, as well as an utterly ridiculous cliffhanger subplot in which Autry must get back to ranch headquarters each afternoon so he can host a radio broadcast! During the course of all this there are two car wrecks, an airplane crash, innumerable



Left: Scientists prepare a flying torpedo; Right: Autry is denied egress by two ridiculous robots. The scene was photographed on the roof of the unfinished Griffith Observatory.

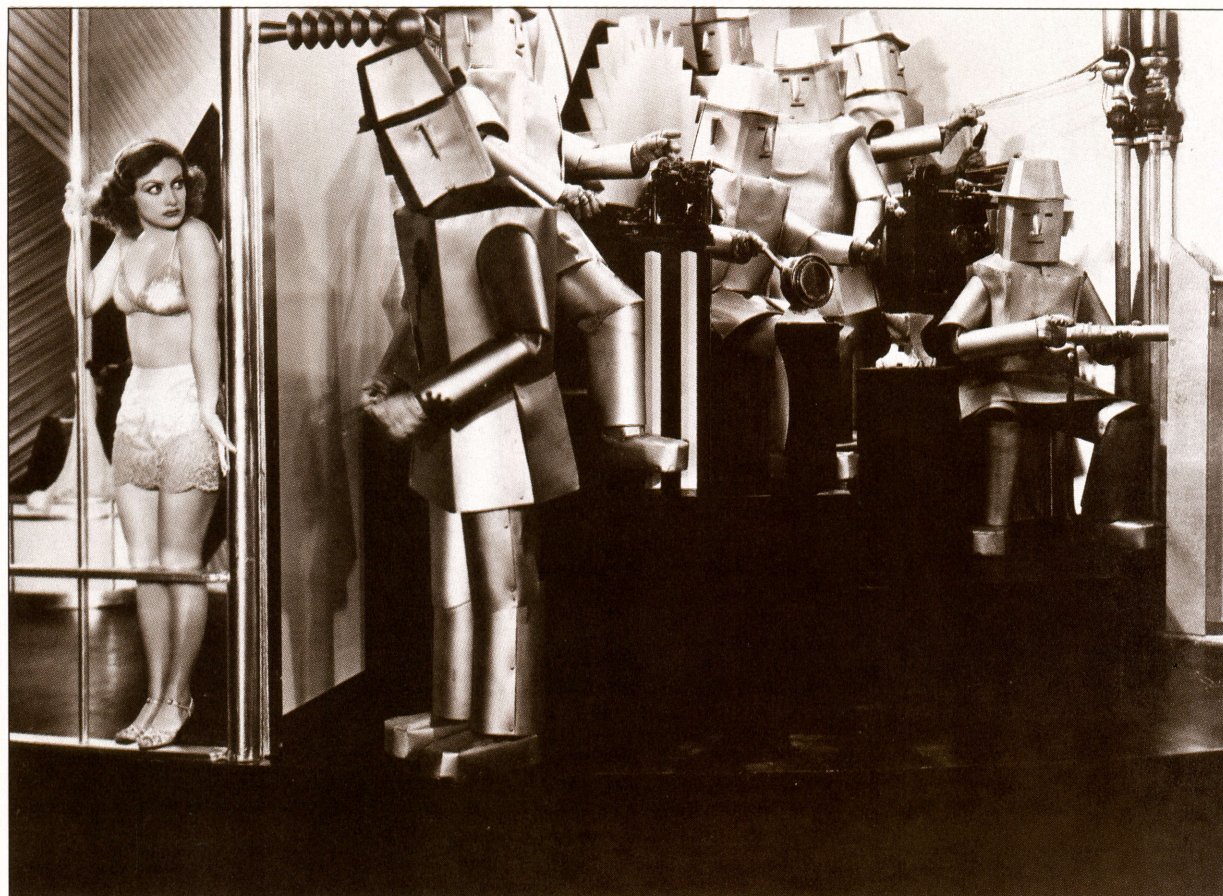
fight and chases, swordplay, several kinds of death rays, an aerial torpedo, dynamite blasts, falls from cliffs and bridges, a surprising number of deliberate murders by the scientists and the Muranians, and the destruction of the lost city — with songs sandwiched in-between.

Radio Ranch, a resort owned by Gene Autry and Tom Baxter, is kept solvent by its daily radio broadcasts featuring Autry and his Radio Riders. Unless Gene appears each day at 2 p.m. for the show, the radio contract will be cancelled and the ranch will be lost. Tom's teenaged youngsters, Frankie (Darro) and Betsy (King Ross), are almost captured by a band of masked and caped horsemen who make a sound like thunder as they ride. The riders are from Murania, a scientific city built 20,000 feet below the surface during the First Ice Age and ruled by the beautiful Queen Tika (Dorothy Christie).

A band of crooks led by Professor Beetson (Frank Glendon) arrives by airplane, intent upon getting rid of Autry so that the ranch will become deserted and they can search for the vast radium deposits they have detected. They ambush Gene, leaving him for dead. Frankie and Betsy find Gene and all three are pursued by Thunder Riders. They fall from a cliff but hang onto a bush and are rescued by the Junior Thunder Riders, a group organized by the Baxter kids.

Beetson murders Tom and frames Autry, who escapes from both the Sheriff and the Thunder Riders. Surviving a car crash, Gene gets back to the ranch just in time for his broadcast. Eventually, Gene, Betsy and Frankie fall into the hands of the Muranians. Tika orders Gene's execution, fearing contamination of her peaceful realm by the warlike surface people. Argo (Wheeler Oakman), the treacherous prime minister, saves Gene from the death chamber. Autry is to be dissected by the scientific genius, Rab (Warner Richmond), to determine why he can breathe the air of the surface (unlike the Muranians, who must wear oxygen masks if they go outside). After escaping and surviving fights with robots and soldiers, Gene is killed in a radium explosion. At Tika's command Rab brings

The Muranian robots previously appeared with Joan Crawford in the MGM musical comedy *Dancing Lady*.



him back to life.

Gene and the kids fight their way back to the surface and flee in Beetson's airplane, narrowly escaping death after a Muranian ray causes it to crash. After further encounters with the Beetson gang, Autry, the kids, and two cowhands, Pete (Smiley Burnette) and Oscar (William Moore) are again imprisoned in Murania.

When Argo's revolt begins, Gene and his friends rescue Tika. Argo's disintegrating ray gets out of control and commences to destroy Murania. Tika elects to perish with her city as Gene and his group escape. Returning to the ranch in time for their radio show, they then trick a confession from Beetson, who admits he also has murdered two of his own men.

By the time *The Phantom Empire* was under way, Autry had become an expert horseman. The picture contains many camera car shots of skillful fast riding by Autry alone as well as with the two juveniles, in which no stunt doubles were used. His acting in this fledgling effort is elemental, with an emphasis on precise enunciation at the expense of expression, but he's fine in the action and musical sequences. Most importantly, he comes across as a pleasant and likeable presence. There's something satisfying about watching an average-looking guy out-ride and out-fight a formidable lot of heavies and still be able to grab a guitar and sing.

Burnette and William Moore provide cornball comedy as a pair of klutzy cowboy musicians. Blonde Dorothy Christy, best remembered as Stan Laurel's shrewish wife in *Sons of the Desert*, is an attractive Queen Tika, although a bit down-to-earth for an exotic role. Effective villainy is provided by Warner Richmond, Wheeler Oakman and Frank Glendon. Among the Muranians are sometime action stars Wally Wales, Jay (Buffalo Bill Jr.) Wilsey, Richard Talmadge, Yakima Canutt and Wally West.

Outdoor action was photographed largely in hill country west of the San Fernando Valley, along the present site of the Ventura Freeway; among the towering rocks of what is now Chatsworth Park; and in Bronson Canyon, a former granite quarry in the Hollywood Hills. One of the four entrances to a mine tunnel which runs through a prominence in the center of the quarry became the secret entrance to Murania. A door was made of lath and chicken wire covered with papier mache and plaster, which was formed and painted to seem a part of the rocky cliff. It could be raised (supposedly by a robot turning a windlass) to allow the Thunder Riders to emerge or enter.

Much of Murania was photographed in and on the Griffith Observatory and Planetarium, then nearing completion several hilltops east of Bronson Canyon. The site later became venerated by James Dean fans as the setting of a fight sequence



in *Rebel Without a Cause*. The futuristic design of the complex structure was ideally suited to the architecture of an imaginary scientific city. Autry and his sidekicks fought Muranian heavies all over the building, which features unusual bronze doors, stairways ascending the rounded exterior, art deco battlements and copper domes. Some interiors were utilized as well.

As was customary in the serial field, two directors and two directors of photography were employed, preparing and shooting on alternate days. Directors Otto Brower and B. Reeves (Breezy) Eason were veteran action specialists who also directed second-unit sequences for epic films. Eason's work includes the chariot race in the 1926 *Ben Hur*, and Brower directed the second units of *Suez* and *Charge of the Light Brigade*. Serving as assistant director was Levine's former office boy, 19-year-old William Witney, who later became a top action director.

The cinematography of serial veterans Ernest Miller, ASC and William Nobles is of a high quality when the breakneck schedule of making a 25-reel show in five weeks is considered. Exteriors were filmed from sunup to sundown each day without resorting to booster lights (an unnecessary expense in Levine's view). Metal foil reflectors were used to deflect some sunlight into faces and shadow areas. There are some artistic lighting effects in the Muranian interiors, including huge shadows of machinery and actors cast on the walls. Tricky camera angles emphasize the unusual architecture of the observatory building.

Special properties, such as death rays and laboratory equipment, are also impressive. The robots, however, are more comical than menacing. This is hardly surprising: the seven suits, which were found at Western Costume, had made their 1933 debut with Joan Crawford in MGM's musical comedy *Dancing Lady*. They seemed even more insipid in 1952 when Columbia resurrected them for another serial, *Captain Video*.

Inventive special effects made the total vision of Murania possible. The miniatures of the city, supervised by technical director Jack Coyle, pro-

vided a great variety of vistas featuring graceful metallic buildings, bridges, elevators, lakes, and tiny pedestrians moving along lofty walkways. This was the work of 23-year-old Howard Lydecker Jr., who was destined to become a legend in the special effects field. Even Universal's far more expensive (and, in other respects, better) *Flash Gordon* serials contain no model work comparable to the vast Muranian cityscape.

Astonishingly, Murania was built for less than \$1200. Many of the structures were constructed with kitchen utensils, plastered over and painted. The dome of one prominent building had been a vegetable strainer. Rings of fluorescent tubing were used for an elevator shaft. Painters be-



tween assignment on other shows were recruited to apply the finishing touches.

Nor can any other serial boast of projection process work as diverse and well executed as that in *The Phantom Empire*. The credit belongs to Ellis "Bud" Thackery, ASC, a versatile cinematographer who had worked for visual effects genius Willis O'Brien on *King Kong* and *The Son of Kong* during 1932-33.

"That's why Nat Levine wanted me, because of my work on the *Kong* pictures," Thackery told us. "We had used miniature rear projection for the first time to place live people into the little sets with the ape and dinosaurs. I worked with that as well as with the full-scale back projection and other forms of compositing."

Miniature projection, invented and patented by O'Brien in 1930, involved photographing action with the cast in partial sets, then projecting it onto the backs of tiny translucent screens mounted on frames and concealed in matching miniature sets. Special little projectors were hand-tooled by Harry Cunningham for the purpose. Regular translucent projection screen material was too grainy for such close shots, so finer-grained materials such as latex were stretched on frames and the small screens were vibrated rapidly during photography to "erase" the grain.

In *The Phantom Empire* the process is used to place the throne room and its occupants into

Left: In spite of their super-scientific weapons, Argo's followers fight Autry and Darro with swords and spears. **Right:** Oscar, Pete, Gene, Betsy (King Ross) are captives in the throne room. Two former cowboy stars are guards — Buffalo Bill Jr. (far left) and Wally Wales (holding Darro).

Autry is horrified by what he sees on the queen's television set almost 60 years before the debut of *Beavis and Butt-head*. The man with the mike is Stan Blystone.



expansive Lydecker surroundings and to show Muranian scientists working in seemingly huge, intricately detailed laboratories with many wheels and pumps in operation. It also made possible one superbly scaled setup in which a technician launches flying torpedoes from a huge domed room. All of these scenes are flawless. Full-scale back projection is also used frequently to place miniature settings behind live action, such as when Autry fights Muranians on a high bridge. A matte painting is employed to provide the throne room with a glass upper wall and a view of the city.

Closed-circuit, cameraless television is depicted via projection or matte shots in numerous scenes. Queen Tika's throne room TV screen is at the bottom of a large circular pit in the floor. Matte shots are utilized to show views looking straight down at the action on the televisior, with the queen in the foreground.

A clever trick is used to depict an airplane crashing over a cliff: the camera pans rapidly with a real airplane as it speeds out of sight behind rocks and trees; as the camera swings past the obstructions, we see a miniature plane emerge and plunge over the edge. The camera then swings down past more obscuring rocks to pick up a full-scale crashed plane (including Autry) at the foot of the precipice.

A startling effect is utilized in the final chapter to show Murania being destroyed by the "ultimate weapon." Frames from the film were enlarged onto glass stereopticon plates coated with a specially formulated thick emulsion. A heating unit behind the upright plate melted the emulsion while a movie camera photographed the deteriorating image in slow motion. It is mesmerizing to watch buildings, caves and even Queen Tika (seated regally on her throne) distort, smear and melt away.

Mascot serials always featured optical title art, with lettering superimposed over action backgrounds. *The Phantom Empire* titles feature seven scenes of Murania and four of the Thunder Riders. At the end of Episode One a 40-second trailer plugs the excitement to come in the next 11 weeks. These were done by Consolidated Film Industries (CFI), who did all of Mascot's lab work and prints, usu-

ally on a cost-deferred basis.

Aside from the songs, there is little music in the serial. The theme for Murania is "Zanzibar," by Henry Hadley, the distinguished composer-conductor and founder of the Berkshire Music Festival. The chapter synopses are accompanied by Charles Dunworth's familiar *misterioso*, "Stealthy Footsteps."

As for Autry, his subsequent career flourished beyond all expectations. When Mascot, Monogram and several other independent companies merged with Consolidated Film Industries in 1935 to form Republic Pictures Corporation, *Westward Ho!* (starring John Wayne) and Autry's *Tumbling Tumbleweeds* were the first two Westerns made by the new company.

Following his three Mascot appearances, Autry starred in 91 feature films: 58 for Republic, one for Twentieth Century-Fox and 32 for Columbia produced by his Gene Autry Productions. In 1940 he was voted the Number One Western Star by the Theatre Exhibitors of America and was named the fourth-largest box-office star (following Mickey Rooney, Spencer Tracy and Clark Gable). He toured the country twice a year with his own show; had a weekly radio program, *Melody Ranch*, for 16 years; headed Flying A Productions, for which he starred in 91 TV episodes of *The Gene Autry show*; and also produced several other series (*Annie Oakley*, *The Range Rider*, *Buffalo Bill Jr.*, *Cavalcade of America*, *The Adventures of Champion*) as well as the first 39 segments of *Death Valley Days*. He also hosted 93 segments of *Melody Ranch Theatre*, featuring his movies.

Autry recorded more than 300 songs, about one-third of which he also wrote (mostly with Burnette or Fred Rose). His recording of "That Silver Haired Daddy of Mine" was the industry's first official gold record; other million-plus sellers include "Tumbling Tumbleweeds," "South of the Border," "Back in the Saddle Again," "You Are My Sunshine" and "Mexicali Rose." His song "Be Honest With Me" received an Academy Award nomination. His recording of "Rudolph the Red Nosed Reindeer" has sold over 25 million copies (second only to Bing Crosby's "White Christmas") and two records for children, "Peter Cottontail" and "Here Comes Santa Claus," have sold more than two million copies each.

In the meantime, he bought interests in large ranches in Arizona, Texas and Oklahoma, two Phoenix newspapers and the Madison Square Garden Rodeo, as well as several recording and music publishing companies, hotels and motels. An Oklahoma town, formerly Berwyn, is named after him. For years he collected royalties from millions of Gene Autry comic books, daily and Sunday cartoon strips, and about 50 commercial products.

Golden West Broadcasters, which Autry and Bob Reynolds formed in 1952, owns several broadcast facilities, including KTLA Television and



In a twist on the typical serial rhubarb, Autry battles sword-wielding soldiers and sledge-hammer-swinging robots.

KMPC Radio, which occupy the former Warner Bros. Studio on Sunset Boulevard. Autry is also principal owner of the California Angels, an American League pro baseball team, and a stockholder in the Los Angeles Rams pro football team. In 1988 he founded the Gene Autry Western Heritage Museum, an outstanding institution in Los Angeles dedicated to the history of the American West.

That this multimillion-dollar empire was founded upon a \$500 job in a \$70,000 serial from Poverty Row is almost as mind-boggling as *The Phantom Empire* itself. "I was very fortunate," Autry has said. "Everybody thought we were crazy. I had no idea what that picture would do." ☛

A Mascot serial in 12 chapters; produced by Nat Levine; directed by Otto Brower, Breezy Eason; supervised by Armand Schaefer; story by Wallace MacDonald, Gerald Geraghty, Hy Freedman; continuity by John Rathmell, Armand Schaefer; photography, Ernest Miller, ASC, William Nobles, ASC; edited by Earl Turner; associate editor, Walter Thompson; sound engineer, Terry Kellum; musical director, Arthur Kay; songs: "In a Vine Covered Cottage" ("That Silver Haired Daddy of Mine"), "Uncle Noah's Ark," "Just Come on In," "I'm Oscar," "No Need to Worry," "Uncle Henry's Vacation," "Moon-eye View of the World" by Gene Autry, Smiley Burnette; settings by Mack D'Agostino, Ralph M. DeLacy, Jack Coyle; special effects, Howard Lydecker Jr., Billy Gilbert; photographic effects, Ellis "Bud" Thackery, ASC; added photography, William Bradford, ASC; costumes, Iris Burns; assistant direc-

tor, William Witney; musical themes, Henry Hadley, Hugo Riesenfeld, Charles Dunworth; recorded by International Sound Recording Company; titles and opticals by Consolidated Film Industries. Running time, 242.30 minutes.

Gene, Gene Autry; Frankie, Frankie Darro; Betsy, Betsy King Ross; Queen Tika, Dorothy Christy; Argo, Wheeler Oakman; Mal, Charles K. French; Rab, Warner Richmond; Professor Beetson, Frank Glendon; Dr. Cooper, Edward Piel Sr.; Oscar, Lester (Smiley) Burnette; Pete, William Moore; Cowboy, Frankie Marvin; Saunders, Jack Carlyle; Radio Technician, Don Brodie; Muranians, Wally Wales, James C. Eagles, Fred Burns, Jay Wilsey, Stanley Blystone, Richard Talmadge, Frank Ellis, Henry Hall, Yakima Canutt, Bruce Mitchell, Rodney Hildebrand, Jim Corey, Wally West, George Magrill, Bob Card, Captain J. King Ross.

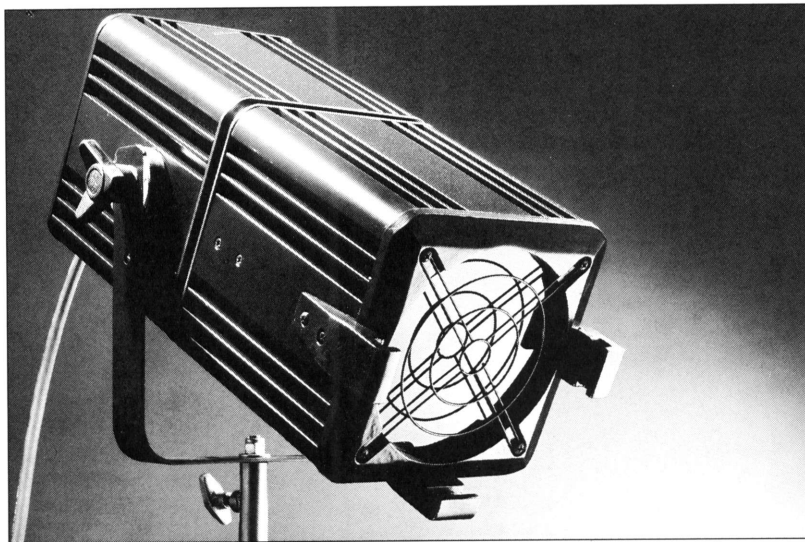
Chapter titles: 1) The Singing Cowboy; 2) The Thunder Riders; 3) The Lightning Chamber; 4) The Phantom Broadcast; 5) Beneath the Earth; 6) Disaster From the Skies; 7) From Death to Life; 8) Jaws of Jeopardy; 9) Prisoners of the Ray; 10) The Rebellion; 11) A Queen in Chains; 12) The End of Murania.

Feature version entitled Radio Ranch adapted by Gerald Geraghty and Maurice Geraghty; released May 2, 1940 by Mascot Pictures; released simultaneously in New York by Times Films as Men With Steel Faces. Running time, 70 minutes.

The author is much obliged to Gene Autry, the late Frankie Darro, Jan Alan Henderson, Michael H. Price, the late Lester Shorr and the late Bud Thackery for information used in this article.

NAB Product Debuts

compiled by Marji Rhea



Long-throw UV Lights

The new WF 250 series of long-throw UV lighting fixtures from Wildfire are high-intensity black lights designed to powerfully illuminate fluorescent materials at distances from 10 to 75 feet. These new fixtures are available in three models: a 20-degree spot, a 50-degree medium spot and a 90-degree flood. All three models come in indoor or outdoor versions. All Wildfire fixtures are supplied with heat-resistant black glass filters which will not fade or scratch. The unit weighs 28 pounds and comes supplied with an integrated ballast (120v/60Hz, 2.5 Amps), automatic safety cut-off switch, mounting bail, pipe clamp, safety cable and one-year warranty.

For information: Wildfire Inc., 11250 Playa Court, Culver City 90230, (800) 937-8065.

Tripod Line

Miller Fluid Heads has a new range of carbon fiber and alloy ENG/EFP camera tripods, designed to suit a wide range of pan and tilt heads. The Miller Series II ENG/EFP camera tripod includes the Lightweight, for use with small CCD



cameras and broadcast camcorders; the Single Stage, for ENG/EFP cameras up to 25 kg.; and the 2-Stage, which delivers optimum torsional rigidity and a large operating height range to a wide selection of ENG and EFP camera systems.

The Series II models feature Miller's new Pro-Lok torque limited leg clamps which provide a maintenance-free, single-turn clamp-and-release

method of adjusting tripod leg height. Redesigned 75mm and 100mm tripod bowls make the Series II tripods suitable for attachment to most makes of heads. The new bowls increase clamping strength and provide a torsion-free attachment to tripod legs. A revised leg angle lock system (for tripod mounting without a spreader) now incorporates a "knock-proof" locking mechanism to eliminate accidental engagement.

Each of the three Series II models is available in a choice of either alloy, utilizing specially milled, hard anodized aluminum tubing of high-strength, cross-laminated carbon fiber.

For information: Miller Fluid Heads, USA, (201) 473-9592, FAX (201) 473-9693.

Camera Support Products

Cinekinetic released seven new products at NAB '94. The Microlite Jib, one of the lightest full-length fully professional tripod-mounted jib arms, weighs in at only 15 pounds but can support cameras weighing up to 50 pounds. The jib is available with either a standard jib arm length of 55 inches or in a sports model, with an arm length of 27 inches. Setup time is less than ten seconds. The Microlite Jib offers clutch-controlled ball-bearing assemblies, which provide smooth pan and tongue moves and offers full lock and variable drag through all axes.

The Nunano is one of the smallest and lightest jibs in existence. With a radius span of only 12 inches, it enables the camera operator to get dynamic grab shots with instantaneous setup. The Nunano can handle most 35mm film cameras as well as a complete range of dockable video cameras. It can be mounted on a tripod, column, or Cinekinetic's new Clever Clamp. The Clever Clamp lets the camera operator clamp a camera to any vertical, horizon-

tal or angled support. Its jaws open wide enough to be clamped to a brick wall or tree. It is available with either a 100mm or 150mm bowl (as are all of Cinekinetic's products).

The Jib Stix is Cinekinetic's first entry into the tripod market. It is a heavy duty, lightweight tripod capable of supporting all of Cinekinetic's jib arms. The two-stage tripod folds to only 27 inches. Its robust construction means there is no whip, a problem often associated with lightweight tripods.

The Clayton's Head provides a camera platform only two inches above the tripod and weighs less than one pound. The head is designed to be used when making locked-off shots; no tilt or pan facility is provided. When mounted on a jib, the camera can fit through the windows of most current automobiles.

The Climbing Column is height-adjustable, offers a built-in seat, and makes unobstructed 360-degree camera pans possible. With the seat removed, the Column accommodates the entire range of Cinekinetic's jib arms. This camera support mounts to Cinekinetic's Sawed Board in less than a minute with only four screws. It can be mounted to any other dolly simply by drilling four holes.

The Saddlecam is an updated version of the Cinesaddle and is one of the least expensive car mount/tripod replacements in the world. Less than one cubic foot in size, it weighs less than a standard 12:1 zoom lens. The Saddlecam is available in a complete range of colors — multicolor for high visibility, original brown for surveillance work, and camouflaged for nature photography.

For information: Mike Young, HWH Public Relations, (212) 355-5049, or Cinekinetic Pty. Ltd., 2 Avon Court, Thornlie, Western Australia 6108, 011.619.459.3690, FAX 011.619.493.2168.

Color Reference Slate

To ensure constant color reference for proper color balance and gray-scale response in film-to-video transfer, director of photography Petr Litomisky has developed a slate with color and gray-scale formica chips inlaid in the clapper. Camera Essentials is distributing his color reference slate, which has four color chips (blue, green, red, and yellow) in addition to black, white and 18% gray. The plexiglass slate is engraved instead

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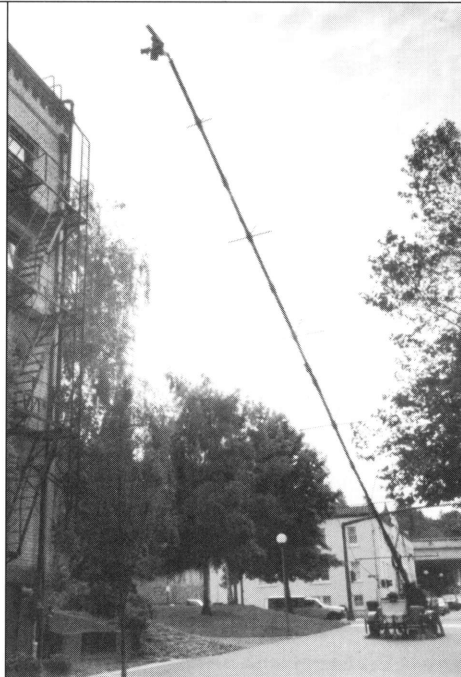
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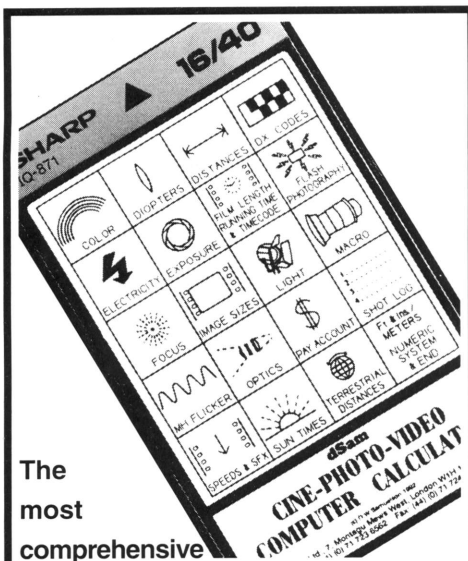
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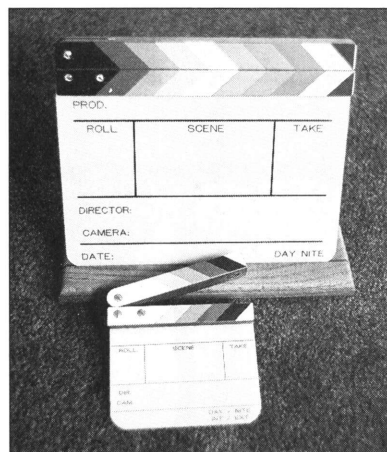
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For information: Camera Essentials, 4470-107 Sunset Blvd., #352, Los Angeles, CA 90027, (213) 666-8936, FAX (213) 666-0214.

Video Post Workstation

At NAB '94, ImMix showcased Version 1.2 of its VideoCube digital video postproduction workstation and introduced the PAL version of the VideoCube. New VideoCube features (for both NTSC and PAL) include "Build to Disk," which offers extensive compositing capabilities; variable speed playback of clips; title rolls; and continued enhancements to the editing model and user interface.

The VideoCube's capabilities include disk-based nonlinear editing, true real-time digital video effects, high-resolution anti-aliased character generation, and editing and mixing of CD-quality stereo audio. Designed as a complete and integrated finishing system for video postproduction, the VideoCube ships complete with all hardware, software, monitors, speakers and even cables; the end-user need only supply a VTR.

The VideoCube provides storage for one hour of online-quality video and two hours of CD-quality audio; additional Storage Modules can increase total VideoCube storage to six hours of online-quality video and 12 hours of CD-quality audio.

For information: ImMix, P.O. Box 2980, Grass Valley, CA 95945, (916) 272-9800, FAX (916) 272-9801.

Digital Software

At NAB, Parallax Software Inc. officially launched its new resolution-independent digital compositing, nonlinear editing and effects system Advance. Advance is capable of producing an infinite variety of the most complicated effects, compositing and editing operations, using an intuitive and highly interactive interface. The new system works with an unlimited number of clips at any resolution or color depth. It also supports the free combination of clips from different formats (offering full re-sizing and re-timing) and allows complex multistage processing in a single pass. Processes include multi-channel compositing, matte extraction, luminance and chroma-keying, color correction, image treatment, stabilization, filtering and DVE — with the ability to get a real-time preview of final results at any stage in the process.

Advance takes advantage of the parallel processing and Reality Engine graphics capabilities of the Silicon Graphics Inc. Onyx series, achieving the highest level of processing speeds and interactivity, and utilizes the Sirius video board to move full 32-bit PAL sequences in and out of the system in real time.

Also introduced at NAB was Version 5 of Parallax' Matador 2-D paint and animation software. Significant developments in the new version include a sophisticated color corrector with two different modes of operation — component and isolated. Component color correction can make immediate adjustments on any primary or secondary colors in RGB/CMY. An instant mask can be created and subtle changes made to adjust color cast in an image without requiring analysis of the colors. The isolated color corrector gives the designer the ability to choose specific areas of color space which can be separated from the rest of the image.

Image stabilization is another new feature that is valuable for amending handheld camera shots in both film and video. Stabilization can be at pixel or sub-pixel resolution and the sampling area can be varied.

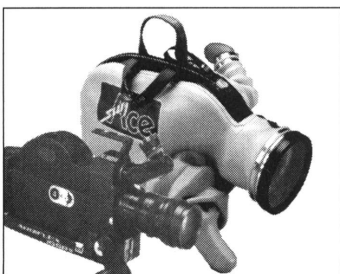
Motion tracking allows for very small areas to be accurately tracked to provide a vector path. One path allows a cutout to be animated and locked to the point. By identifying additional points to lock in on, it is possible to identify an area that can be tracked and replaced

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with perspective. Impressive effects can be created by adding in a warp map to the area.

Matador Version 5 is fully integrated into Advance, which means that the user can go from a clip on the non-linear editor directly into the Matador system. A new rotoSCOPE menu with full grab and drop has been incorporated so that retouch rotoscoping can be done in full screen while complete control is maintained over an external device.

For information: Parallax Software Inc., 237 Park Avenue, 21st Floor, New York, NY 10017, (212) 551-1748, FAX (212) 697-8486.

Time-Code Slate

Professional Sound Corporation introduced its new IntelliSlate, among other products, at NAB. The PSC IntelliSlate time-code slate device features the ability to read and generate SMPTE time code on 24, 25, 29.97, and 30 frame rates, as well as 29.97 and 30 drop-frame. The generator can be programmed to any valid time code and user bits, or it can be jam-synced from an external source. In read mode, the IntelliSlate will not lose a frame (displaying one frame behind actual code) like other slates. Programming is performed via the sealed front panel membrane switches. A hold function switch is provided to prevent accidental switching, which effectively locks out all controls. A port on the side of the unit will accommodate a standard Comtek PR-72B receiver. The battery compartment is internal to the unit. The front of the slate is a hard-faced lexan overlay which is compatible with Expo dry-erase markers.

For information: Professional Sound Corporation, 24932 Avenue Kearny, Unit 4, Valencia, CA 91355, (805) 295-9395, (805) 295-8398.

Avid Systems

AvidNet and MediaServer also made their debut at NAB '94. AvidNet is a series of high-performance network solutions to enable real-time playback and/or file transfer of JPEG-compressed full-motion video and multi-track audio. It runs over fiber-optic cabling, linking together Avid systems to form an integrated environment. The Avid MediaServer allows multiple users to simultaneously record, edit, transfer and/or playback digital video and audio in a high-speed, networked environment.

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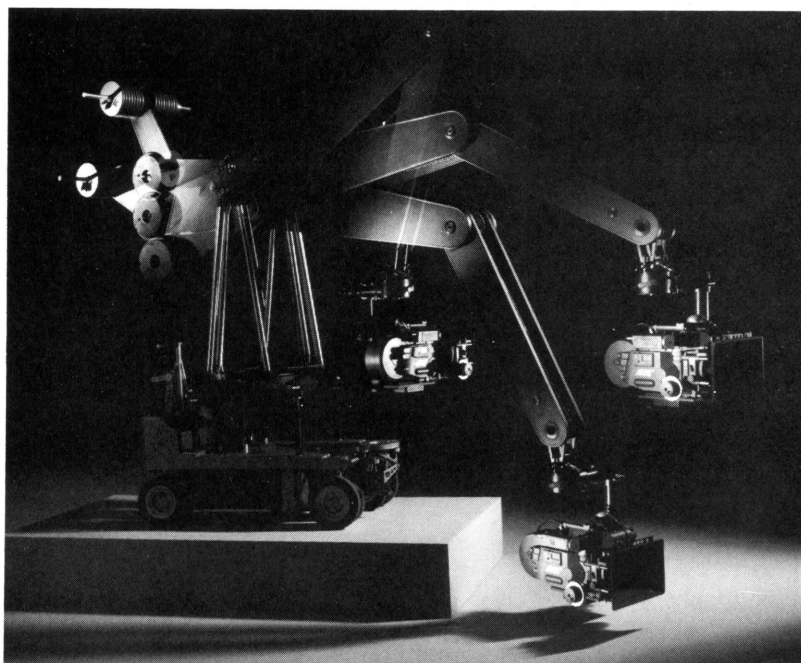


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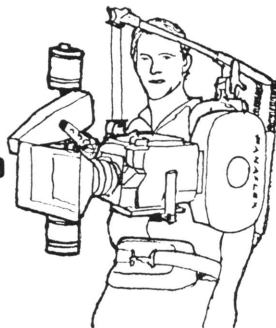
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Avid also demonstrated Media Composer software release 5.5. Key features in the online Media Composers include real-time color correction, real-time titling, real-time DVEs and support for Truevision's new DVR technology. Avid unveiled its highest image quality to date: AVR 26 — a 60-field resolution running on the company's dual-stream JPEG board (utilizing C-Cube's 560 JPEG processor).

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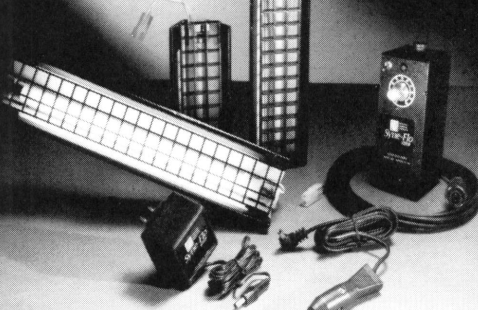
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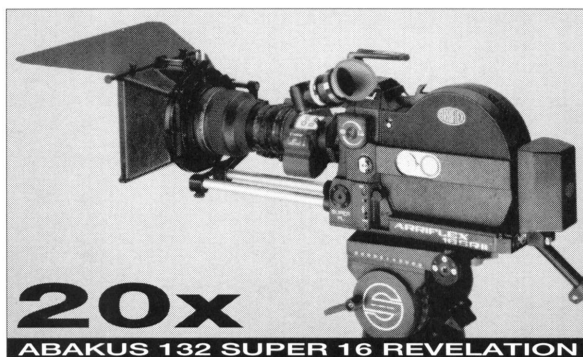
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Fluid Heads and Tripods

O'Connor Engineering Laboratories demo'd several new products at the NAB Show. Two of the company's new Ultimate Fluid heads, the 515 S and 1030 S, are designed to assist studio and field production. Each head is designed to accommodate a 36% increase in camera weight. The 515 S will balance a 25-pound camera with a 6-inch-high center of weight. The 1030 S will balance a 45-pound camera with a 6-inch center of weight. The additional capacity will counterbalance the cameras using prompts, large studio viewfinders and/or lighting accessories. The third new Ultimate Fluid Head, the 2575 V, is designed with less pan fluid drag and is ideal for studio pedestal applications.

The new 65 Tripod incorporates the best of the two-stage design and the strengths of the tapered leg design. The tripod operates from 16.5 to 65 inches and is exceptionally light for its strength. It is available in carbon fiber, titanium, and aluminum.

For information: O'Connor Engineering, 100 Kalmus Drive, Costa Mesa, CA 92626, (714) 979-3993.

New York's Film Industry Fights AIDS

by Brooke Comer

Members of New York's film industry turned out in full force to help fight AIDS by donating their time, services, products and facilities to make *Gay Men's Health Crisis: A Portrait*, a 16-minute fundraising film aimed at private donors. The film, which was recently honored with a gold medal as Best Fundraising Film at the 1993 New York Festivals, features candid interviews with HIV-infected men and women, as well as a look at how GMHC helps cope with the crisis.

Director Victor Mignatti, whose previous credits include spots for Lifesavers, Florida Lottery, Long's Drugstores and Cablevision Industries, had worked on a previous GMHC PSA, *Dance For The Right Thing*, which was aired on TV and is released theatrically each year to promote the Dance-A-Thons in New York, Los Angeles and San Francisco. GMHC special projects coordinator Elizabeth Eynon, who brought Mignatti on board for both projects, conceived *A Portrait* as a way to bring the pathos of AIDS home to potential sources of funding. "Elizabeth came to me with the idea of making a fundraising film aimed at a very specific audience, primarily extremely high-level private and corporate donors," says Mignatti.

One of the challenges of the "narrowcast" (as opposed to a broadcast) involved keeping the film emotionally charged. "Since everyone viewing the film understood that they were being asked for money, it was more important to involve them in the emotions of the issue rather than bombard them with statistics," Mignatti explains. The delicate balancing act also involved "making sure the film was very emotional, but cool enough not to flip out executives who might not want to display a lot of emotion in their offices."

Mignatti accomplished this goal through the look of the film: "Production value was very important. The film had to look as gorgeous as a documentary could, like something elegant that the audience would buy for their home."

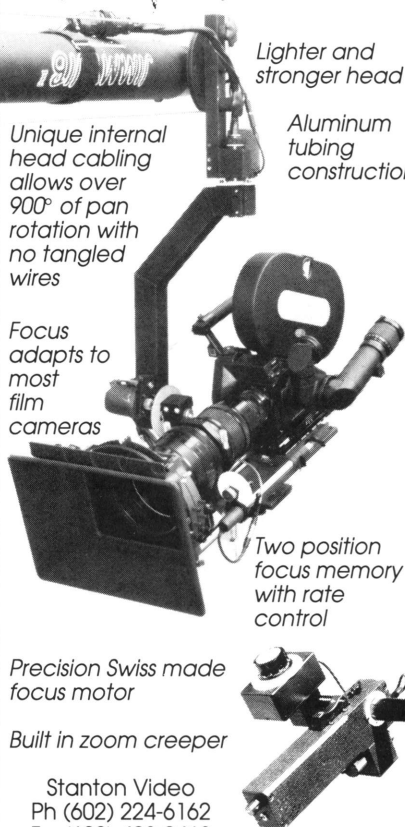
With this aim in mind, the film was shot on black & white film, primarily to offset the filmmakers' "inability to art-direct many of the scenes." Some of the scenes, shot at GMHC's Manhattan offices, look like a standard documentary, while others were set up as stylized interview sequences. "We'd find an architecturally interesting corner, light it beautifully, and film our subject there," Mignatti recalls.

Another important consideration for Mignatti was finding a cinematographer who could shed just the right amount of light on the subject. He chose Roy Gumpel, known as a still shooter who works primarily in black & white. Gumpel had shot some spots for Mignatti, and the director thought he'd be an ideal candidate. "Roy's work is very sensitive," Mignatti says. "He was instrumental in helping to create the look."

Mignatti envisioned that look, seen in the documentary part of the film, as "something a still photographer had taken with a Leica — [the look of] a very off-the-cuff photo. For the stylized portraits, he and Gumpel chose to keep the camera from getting close to the subjects. "We didn't want to be zooming in as people started to cry," Mignatti says. The balance of lighting in the interview segments was combined with soft, documentary-style lighting. "Roy worked in an interesting way that I'd never seen done," says Mignatti. "He put up a huge, 20' X 20' over half the room, and then lit the room early in the day so people could get used to having one huge light there. After 15 minutes, they were used to it and didn't feel that it was intrusive. As a result, we got wonderful material out of the lighting setup."

Any director shooting an AIDS documentary must take into account an important ramification: anonymity. "Aside from scenes from the AIDS walkathon and an AIDS rally, everything else had to be staged. A lot of people won't go on camera and say they have

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AIDS or are infected with HIV. We had to ask people, including the mothers and fathers of AIDS patients, if they'd like to be in a film. When they showed up, they had to sign a release. So it wasn't a pure documentary. We needed their permission in advance."

Though the entire project came to fruition over the course of one year, *Portrait* took seven days to shoot. Mignatti, who also edited, was enthusiastic about the level of support New York facilities showed when it came to donating gear and rooms. The 14 hours of film that Mignatti ended up with was all donated by Agfa. "I loved the way the Agfa stock looked," he enthuses. He shot color stock and transferred to black & white at New York's Editel: "That way, when the footage goes into the archive, they'll have color if we want it down the line." Editel donated a supervised transfer of everything, and it took weeks to transfer the film. "The point was to present GMHC with a film that they could use to make a dozen or more PSAs. We felt we were creating a library of material for them to use down the line."

Editel also donated time for the online, while offline was done in three weeks at RVI/Rutt Video. The project was finished at Stable Films, and audio was done at Sync Sound, with music from composer/lyricist Peitor Angell. Mignatti cites Camera Service Center's special help. CVC lent all camera, lighting and grip gear, "and they're always unbelievably wonderful about supporting the AIDS fight."

During the year it took to transform *Portrait* from a concept to a finished piece, Mignatti was going back and forth from the serious, sensitive subject matter to the national spots he's been shooting across the country — "which, ironically, happen to be very wacky, goofy and funny," the director observes.

The spot's 16-minute running time forced Mignatti to make some tough decisions. "There was so much unbelievably moving footage that it was very hard to extract certain stories and decide which story was more important to the structure of the film than another. It's a painful experience to leave someone's story on the floor of the editing room. That's why I want to go back and put together a longer version. All those stories deserve to be told. They have a message that people need to hear."

Books in Review

by George Turner

The Overlook Film Encyclopedia: Science Fiction

Edited by Phil Hardy
Overlook Press
478 pps., cloth, \$50

A decade has passed since the first two entries in The Film Encyclopedia series, *Science Fiction* and *The Western*, were published by William Morrow. Long out of print, these large-format volumes have been heavily revised and updated in new editions by Overlook Press, which also promises a forthcoming *Horror* volume.

Vast in scope and loaded with information, *Science Fiction* lists more than 1,450 films (compared to about 1,200 in the first edition) made from 1895 through 1990. The titles are arranged chronologically and include partial credits (companies, producers, directors, writers, cinematographers, special effects directors and leading players), running times and a concise synopsis/critique.

The trends of the genre over its 95 years are effectively shown as the comical trick films of the first 25 years develop into the weird adventure yarns of the 1920s, the mad scientist and monster dramas of the 1930s and '40s, the astonishing range of excellent and awful films of the '50s and '60s, and the triumphant big-budget pictures that have followed in the wake of *Star Wars*. The opening essay further clarifies these trends. Comments on individual titles say a lot in few words and the opinions are well-supported. Occasional misspelled names surface, as well as a few factual errors, such as identifying pint-sized "Western veteran Bob Steele" (instead of lanky stuntman Tom Steele) as the man in the robot suit of *The Mysterious Dr. Satan*, or having John Lodge (of the Boston Lodges) become an American citizen and enter politics sometime after starring in the British production *Bulldog Drummond Strikes Back*. Not to carp: the sporadic gaffe is to be expected in a book of this scope.

There are at least 600 well-re-

produced illustrations from the Kobal Collection, many of them rare. Photo captions take some of the fun out by generally identifying only the star performers. Denis Gifford, Anthony Masters, Paul Taylor, Paul Willemsen and Kim Newman contributed their knowledge to this delightfully massive tome.

The Overlook Film Encyclopedia: The Western

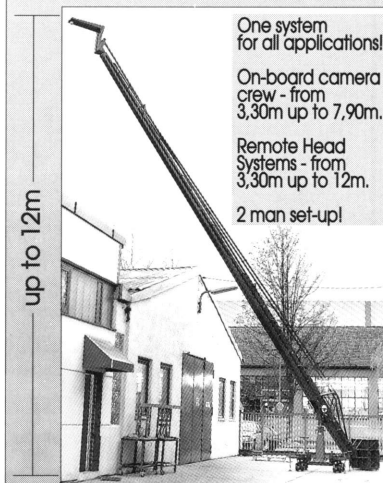
Edited by Phil Hardy
Overlook Press,
416 pps., cloth, \$50

This plush new edition of *The Western*, which is similar in format to the *Science Fiction* book, covers about 1,800 of the Westerns made from 1929 to 1990 — in other words, almost half of all the horse operas made in the 60-plus years since the first Western "talkie." The notes are intelligently written, reflecting none of the anti-Western bias common to many contemporary critics, and the same attention is accorded to the Saturday shoot-'em-ups as to the John Ford spectacles. Included besides traditional features are comedies, serials, musicals, all-black films, European Westerns and others. Comments on cinematography and other production values are often included, notwithstanding the necessary brevity. For once, fine performances by beloved heavies such as Harry Woods, Allen Sears, Roy Barcroft and Dick Alexander are acknowledged.

Some errors in the old edition have been corrected, but there's still a gaffe now and then, such as a reference to Tom Mix's *The Miracle Rider* as a "Buck Jones serial," the identification of Charles Starrett in a photo as one "Bruce Lane," and terming Nana Bryant a male villain in *Eyes of Texas*. Again, the failure to completely identify players in many of the photos is an annoyance.

An appendix alphabetically lists about 2,100 additional films that could not be covered in detail, citing each title's year, running time, director and two or three players. This is necessary

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inasmuch as the book is already huge, but it makes one wish for a sequel volume in which these entries could be expanded.

Also included is a well-reasoned introductory essay, "The Western in Perspective," and a number of appendices listing box-office champs, critics' top tens, Oscars, literary sources, a bibliography, etc. Enjoyable photos, usually two or more to a page, are abundant.

A Guide to Silent Westerns

by Larry Langman

Greenwood Press

578 pps., cloth, \$50

Larry Langman's *A Guide to Silent Westerns* ends where *The Western* starts. It alphabetically lists more than 5,400 Westerns known to have been made before the intrusion of the microphone and, for most entries, provides writer and director credits, leading players and brief descriptions. Included are short films of one reel or less (such as the pioneering *The Great Train Robbery* of 1903), features of five reels or more, and multi-episode serials of 10 to 15 two-reel chapters.

Where possible, the author went right to the source: the actual films, including the pre-1912 pictures that survive thanks to Kemp Niver's rescue of paper prints in the Library of Congress copyright archives. Because most of the films no longer exist, other sources had to be consulted. Many of the feature-length films are also covered in the American Film Institute Feature Film Catalogs, but the numerous short films and serials are not. Even in the late 1920s, many two-reel Westerns were being made, mostly at Universal, and some big-time talent (including John Ford and William Wyler) learned their craft on these mini-mellers.

An informed introduction offers an overview of the history of silent Westerns, describing the many sources and themes that surfaced in the genre's evolution from realism to mythology. A valuable feature is a listing and pocket description of more than 200 distributing companies whose releases are represented.

There aren't as many stills as one might wish for, but the abundance of hard-to-find information makes this a nifty companion volume to the *Overlook* series.

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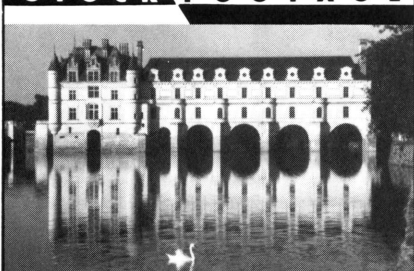
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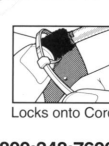
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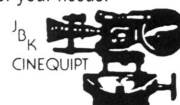
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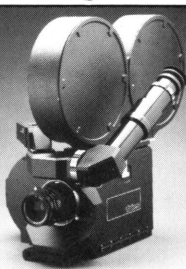
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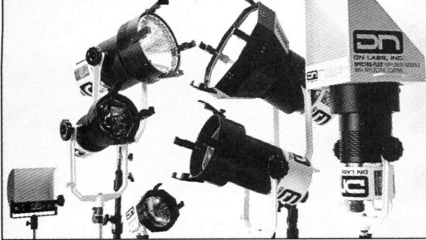
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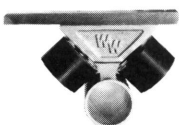


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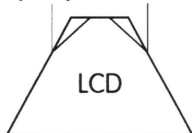
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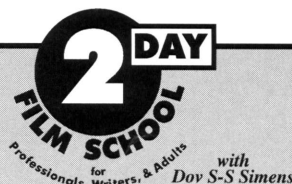
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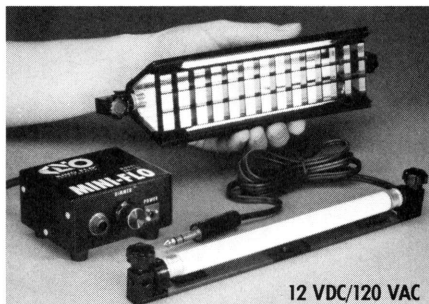


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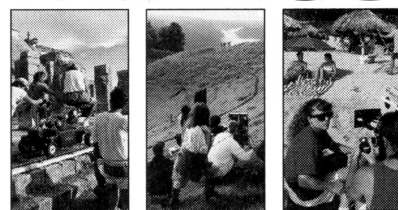
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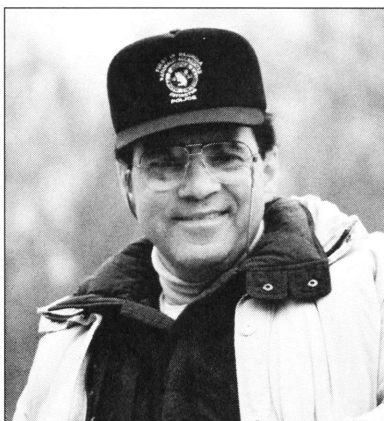
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In Memoriam



Peter M. Salim, ASC, died of a heart attack February 2 in Los Angeles. He was 54 and had worked in motion pictures for 28 years, mostly as a cinematographer and director. He seldom spoke about his career, but when he became an ASC member in 1992 he summed it up as follows:

"I was a film editor and a member of Local 776 Editor Union. I'm a member of the Directors Guild and I've directed episodes of *In the Heat of the Night* and *Murder She Wrote*. Also I've directed documentaries and industrial films.

"But," he emphasized, "Photography is my first true love."

Salim was born May 10, 1939, in Puerto Rico. His family moved to Buffalo, New York, when he was an infant. He began his theatrical career as an actor at the Studio Arena Theatre in Buffalo. Later he was given a drama festival award in Monte Carlo. Following a stint in the Army, he and several friends opened their own company to produce documentary films. One of these, *I Wonder Why*, won an award from the Museum of Modern Art.

Although he had become a professional film editor, Salim eventually began working as an assistant cameraman in New York City. One of his first jobs in this capacity was in Paramount's 1973 Technicolor police drama, *Serpico*, which was photographed in the streets of New York and won high praise for its artistic realism. A long engagement fol-

lowed with the similarly realistic television police series, *N.Y.P.D.*

He later worked with Wilmer Butler, ASC on *Jaws*, the most successful movie of 1975. In July of 1975, he moved to California. He later worked with Butler on *Jaws II* and *Child's Play*; with Victor Kemper, ASC on *Who is Harry Kellerman*, *The One and Only*, *The Jerk* and *Hot to Trot*; with Gordon Willis, ASC on *The Godfather* and *The Godfather Part II*; with Michael Chapman on *The Lost Boys*; and with Gayne Rescher, ASC on *Honey Boy*. He also was operator for various cinematographers on more than 300 one-hour episodes of prime-time television, including *Airwolf* and *C.H.I.P.S.* He had a long stay in Hawaii with *Magnum P. I.*

Salim was designated a director of photography in 1978. His early work in this field included the 90-minute Public Broadcasting Special; *Invasion of Privacy* and a Dick Van Dyke NBC Special. He also photographed numerous commercials, public service programs, music concerts, sporting events, fashion shows and promotional films. He was second-unit director of photography of several features, including *Child's Play* and *Last Boys*.

He gained widespread attention in 1988 with the Warner Bros. TV series *Spencer for Hire* (starring Robert Urich), for which he photographed 44 one-hour episodes on location in Boston. In 1991 he joined MGM-UA for the TV series *In the Heat of the Night*, which featured Carroll O'Connor and was filmed on location in Louisiana. He photographed 66 one-hour episodes of the award-winning show and also directed several segments.

For the past three years he had been photographing the long-running *Murder, She Wrote* series with Angela Lansbury, for MCA at Universal City. He directed several of the hour-long episodes as well.

Salim became an ASC member in August 1992. He is survived by a daughter, Elizabeth, and a son, Paul. ☛



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From the Clubhouse



The ASC recently welcomed John Jensen and Jonathan Erland into the Society as active and associate members, respectively. John Jensen was educated in Copenhagen in mechanical engineering and he emigrated to the U.S. in 1966, coming to work for Fouad Said, where he was involved in the design and manufacture of the Cinemobile. He joined the union in 1973 and worked as an assistant cameraman and camera operator, working with such cinematographers as Steven Poster, ASC on *Dead and Buried*; Mario Tosi, ASC on *Coast to Coast*; Owen Roizman, ASC on *Electric Horseman*; Jordan Cronenweth, ASC on *Altered States*; Don Thorin, ASC on *An Officer and a Gentleman*. He became a director of photography in 1984 and has since shot thousands of commercials and twelve made-for-television movies. Jensen was nominated for two Emmys for *Into the Badlands* and Hallmark Hall of Fame's *An American Story* and for an ASC Award for *An American Story*. He broke into features with *Benefit of the Doubt*, and went on to photograph Martha Coolidge's *Rambling Rose*, which won him a nomination for an Independent Spirit Award; *Lost in Yonkers*, another Coolidge film; *Grumpy Old Men*; and *Angie*.

As director of research and development for Apogee Productions, Jonathan Erland oversees the invention and development of new technology required for the special effects produced by the company. Erland's particular interest lies in the arena of visual effects composite photography.

Erland received his early professional training in his native England, where he studied theatre at the Central School of Speech and Drama, and film at the London International Film School. His studies were later continued at Goodman Memorial Theatre in Chicago. Beginning his professional life as an actor and theatrical technical director in Toronto, Canada, Erland participated in the golden age of live television drama with the

Canadian Broadcasting Corporation. Meanwhile, Erland's eclectic interests allowed him to augment his income by working in the field of industrial design, prototype/product development and industrial exhibition. His pursuits in this area led him to take part in the work of designer and filmmaker Charles Eames. One of these projects was the audio-animatronic puppet theaters built for the IBM pavilion at the New York World's Fair of 1964.

In 1976, he joined the group that John Dykstra was assembling to produce effects for the film *Star Wars*, beginning an association that has continued to the present. During the formation of Apogee Productions, Erland established one of the first research and development departments in the modern era of visual effects facilities. In his current capacity he has developed and implemented a wide variety of technical processes for composite photography, three of which have been patented.

Working closely with such companies as Eastman Kodak and The 3M Company, he has assisted in the design of film stocks and front projection material, as well as worked on improving techniques for film-to-tape transfer and electronic postproduction.

Erland, who has garnered dozens of awards for his innovations, is a member of the Academy, serves on the Scientific and Engineering Awards Committee and the General Membership Committee, and is chairman of the Visual Effects Committee. He is also a member of the British Kinematograph Sound and Television Society. He is a Fellow of SMPTE and serves on a number of SMPTE committees, including the HDTV Production Standards and Education Committees.

In addition to *Star Wars*, Erland's feature film credits include *Close Encounters of the Third Kind*, *The China Syndrome*, *Firefox*, *Never Say Never Again*, *Spaceballs*, *My Stepmother is an Alien*, and *Ghostdad*. ❀

The Ethics of Replacing a Colleague, and Other Thoughts

by Robert Primes, ASC

The late, great cameraman Harry Wolf, ASC used to say that no one could call themselves a journeyman cinematographer until they'd been fired at least once.

Directors of photography joke amongst themselves about being fired, but often they're laughing through tears. It hurts to be fired, and the more pride you have in your work, the more it hurts.

There are many reasons why a director of photography is replaced (to use the euphemism). A director of photography almost always works under at least two intense pressures: to do beautiful and meaningful work and to do it within a predetermined and generally tight schedule. Failing to do either one, of course, can jeopardize your job, as can any gaffe in the politics of dealing with stars, producers, etc.

Altogether too often, and for reasons known only to the producers themselves, cinematographers are the last to know they are being dismissed. It is common for productions to summon another director of photography, negotiate a new contract, screen footage and ship the new cinematographer out to location without even notifying the outgoing cinematographer that a problem exists. Perhaps the producers fear that the dismissed director of photography will have a temper tantrum or attempt to sabotage the production. In my experience, directors of photography are far too proud of their work and too loyal to the film medium to even think of such nonsense. Cinematographers generally get so absorbed with the shooting itself that they become unaware of the politics.

At a "bull session" for cinematographers held at the ASC Clubhouse on Monday, January 31, sixty or so directors of photography held a lively discussion for over an hour on the ethics of replacing another director of photography. There seemed to be a unanimous mandate for telephoning the cinematographer one is supposed to replace before accepting the job. You may help to save

his or her job. Failing that, you can at least hear both sides of the story and gain the benefit of any advice.

The group unanimously agreed that the first responsibility of a director of photography should be to the colleague in trouble. This seemed to me an especially courageous position, given the high rate of unemployment among cinematographers these days. It is not easy to put abstract concepts like honor and loyalty above getting a job you want. I was proud of the high ethical standard of the directors of photography that night and felt honored to be among them.

* * *

There seem to be far more directors of photography than jobs these days. Breaking in has always been tough, but lately one sees experienced, well-proven, and even greatly honored cinematographers going longer between jobs.

Given the current economic crunch, the higher price of experienced cinematographers is probably a large factor. Another may be that the rapid change of the cinematic language, especially in commercials and music videos, has caught some fine directors of photography unwilling or unable to abandon the principles and the styles they spent their lifetimes learning.

Because we have a vested interest in the craft we have worked so hard to learn, it is easy to reject a new style. Whenever it seems difficult to embrace some contemporary technique, such as the use of 8mm film or erratic camera moves, I am reminded of two very different paintings hanging close to each other in New York's Metropolitan Museum of Art.

The first painting is a simply composed classical portrait of a woman in a large, fully hooped lace dress. Although the source of light is unseen, the lady is clearly standing under a skylight. The quality of light becomes softer as it

strikes the perimeter of her dress, as though some cinematographer had spaced three or four layers of opal frost under the skylight, with holes cut in the lower layers to allow a slightly harder light to land on the center of the dress than on the periphery. I was amazed to see that the painter had the patience and skill to render what seemed like thousands of minute pieces of lace with such subtlety and exquisite detail.

Around the corner, meanwhile, hung Matisse's famous "Nasturtiums and the Dance." Vibrant colors seemed to have been trowelled on so passionately that Matisse hadn't even bothered to cover up all of the raw canvas. He didn't bother with shadows or a sense of light: he seems to have made a rough sketch and crudely filled it in with bold strong color.

It occurred to me that the painter of the lady in the lace dress might have had a bit of trouble recognizing Matisse as a great artist. After a lifetime invested in studying light and shadow and meticulously perfecting his craft, how could he respect Matisse's work? Yet history has decreed Matisse the more important and valued painter.

I believe people sometimes tire of seeing the same images, no matter how perfect or beautiful they may be. When Bob Richardson, ASC puts a character into a shaft of heavily overexposed light, it heightens our awareness. It's different from what we're used to seeing. He breaks through existing conventions and gives us a powerful new technique.

We must all choose what is more important: avoiding mistakes or going for greatness. A trusting and supportive alliance of director, cinematographer and crew boosts our self-confidence. This is far more important than mere politeness or good politics. Rather, it is exactly what we need to overcome our fears of making mistakes and rise to our bravest and best work.

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REINHART PESCHKE, ready to shoot with his Raybeam and Gold GamCloth.

“My favorite GamColors are 320 Peach and 375 Flame.”

“I use these colors together to simulate firelight. The Flame colors my direct light, controlled by an SPE-5 Flicker Master. The Peach is for bounce light, reflecting off Gold GamCloth. I can manipulate the GamCloth to vary the mix and create a realistic depth for the effect. The 375 Flame really looks like fire!”

REINHART PESCHKE
Gaffer

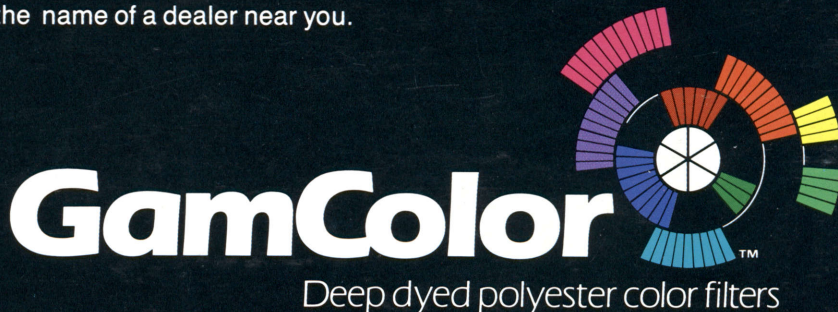
REINHART PESCHKE

‘Gaffer’ is an understated title for Peschke. He has over 20 years of experience as gaffer, lighting director and technical director, dividing his time between feature films, commercials and videos. Because they give him the opportunity to experiment with new ideas and technology, he finds that commercials and videos are vital to his professional growth.

Grass never grows under Peschke’s feet! His resume includes over 100 films, over 3000 commercials and over 400 music videos. Highlights of his film career include: NATURAL BORN KILLERS (Oliver Stone, for release in 1994), JFK, BORN ON THE 4th OF JULY, TEEN-AGE MUTANT NINJA TURTLES III, TALK RADIO, EIGHT MEN OUT, CABARET, LESS THAN ZERO, and ROLLERBALL.

He designed the versatile RAYBEAM fixture pictured here and rents it through his Rayteam Productions, Inc.

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